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Developing a multidimensional maturity framework for emotional awareness: A systematic literature review

Muqaffi Muqaffi[1], Eka Sakti Yudha[2], Juntika Nurihsan[3]
1. Universitas Pendidikan Indonesia, Indonesia
2. Universitas Pendidikan Indonesia, Indonesia
3. Universitas Pendidikan Indonesia, Indonesia
Corresponding Email: muqaffi07@upi.edu

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Abstract

This study presents a systematic literature review (SLR) aimed at identifying and analyzing the main dimensions and specific indicators in multidimensional emotional awareness (EA) maturity assessment instruments. Adhering to the PRISMA protocol and utilizing the Scopus database for the period 2015–2025, a total of 18 selected studies were examined through thematic and bibliometric analyses. The SLR results reveal that consistent dimensions in emotional awareness instruments include self-awareness, other-awareness, emotional clarity, differentiation, regulation, blending, as well as socio-emotional aspects such as empathy and social awareness. In addition, context-specific unique dimensions, such as physiological and moral indicators, were identified. The reviewed instruments generally integrate multidimensional approaches cognitive, affective, social, and physiological to comprehensively and culturally sensitively capture emotional maturity. These findings underscore the need for the development of emotional awareness assessment frameworks that are more responsive to individual development and cross-cultural variability, and that can effectively support evidence-based interventions across various applied fields.

Introduction

Emotional awareness the capacity to recognize, differentiate, and articulate one's own emotional experiences and those of others represents a fundamental dimension of human psychological functioning that bridges cognitive development, social competence, and mental health (Lane & Schwartz, 1987; Lane & Smith, 2021). Despite over three decades of theoretical and empirical work since Lane and Schwartz's (1987) seminal cognitive-developmental model, the field lacks a comprehensive, psychometrically robust framework for assessing the multidimensional nature of emotional maturity across the lifespan. This gap has significant implications for both research and clinical practice, as emotional awareness serves as a critical mediator between automatic affective responses and adaptive behavioral outcomes (Salovey & Mayer, 1990; Knopp, 2025).

The recognition that emotions constitute organized responses involving physiological, cognitive, motivational, and experiential systems has fundamentally transformed our

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understanding of human psychological functioning (Panksepp, 1998; LeDoux, 1996). Contemporary affective neuroscience has established that emotional processes emerge from the coordinated activity of subcortical survival circuits and cortical regulatory systems, creating layered representations that range from basic bodily sensations to complex conceptual understandings (Davis & Montag, 2019; LeDoux & Brown, 2017). However, while neuroscientific research has mapped the biological substrates of emotion, the developmental trajectory through which individuals acquire increasingly sophisticated capacities for emotional awareness remains incompletely characterized in assessment frameworks.

Lane and Schwartz's (1987) original formulation proposed five hierarchical levels of emotional awareness, drawing on Piagetian cognitive-developmental theory and Werner's orthogenetic principle. These levels progress from awareness of bodily sensations (Level 1) through action tendencies (Level 2), single emotions (Level 3), blends of emotions (Level 4), to blends of blends with sophisticated self-other differentiation (Level 5). This model represented a paradigm shift by conceptualizing emotional experience as observer-dependent reality shaped by cognitive structures, rather than simply reflecting underlying physiological states. The associated Levels of Emotional Awareness Scale (LEAS) operationalized this framework through open-ended scenario-based assessment, demonstrating robust psychometric properties and meaningful associations with mental health outcomes, interpersonal functioning, and neurobiological markers (Lane & Smith, 2021).

An alternative yet complementary perspective on leveling emotional awareness emerges from the contemplative tradition as articulated in the dialogue between the Dalai Lama and Paul Ekman (2008). Their framework offers a more parsimonious and accessible model that emphasizes the phenomenological quality and functional implications of emotional awareness rather than purely cognitive-structural features. The Dalai Lama and Ekman (2008) propose a progression that moves from being overwhelmed by emotions (where individuals are consumed by their emotional reactions without recognition), through recognizing emotions as they occur (developing momentary awareness during emotional episodes), to anticipating emotional triggers (prospective awareness that allows preventive action), and ultimately to transforming emotional responses (cultivating adaptive emotional patterns through sustained practice). This model has particular appeal for clinical and educational applications because it emphasizes practical skills that can be developed through contemplative practices such as mindfulness meditation, making the developmental trajectory more concrete and actionable for individuals seeking to enhance their emotional awareness. The integration of Buddhist psychological insights with Western affective science in this framework bridges cultural perspectives and highlights universal aspects of emotional development while remaining accessible to diverse populations. Unlike the more complex five-level LEAS model which requires substantial training to score reliably, the Dalai Lama-Ekman framework offers intuitive distinctions that can be more readily understood and applied by both clinicians and clients, potentially facilitating its use in therapeutic contexts where collaborative goal-setting around emotional development is desired. Furthermore, their emphasis on compassion as both a motivator and outcome of enhanced emotional awareness adds an ethical dimension often absent from purely cognitive-developmental models, linking emotional maturity to prosocial values and interpersonal harmony (Dalai Lama & Ekman, 2008).

However, contemporary emotion science has evolved considerably beyond the original formulation. Constructionist approaches emphasize that emotional experiences emerge through the conceptualization of basic affective states using learned emotion categories, with language playing a constitutive rather than merely descriptive role (Barrett, 2017). Appraisal theories have elaborated sophisticated models of how cognitive evaluations along multiple dimensions (goal relevance, coping potential, norm compatibility) generate differentiated emotional responses (Lazarus, 1991; Moors, 2017). Meanwhile, cross-cultural research has revealed both universals and cultural variations in emotional expression and recognition,

challenging simple assumptions about the nature of basic emotions (Ekman, 1971; Cordaro et al., 2020). These theoretical advances necessitate a more nuanced assessment framework that captures not only the hierarchical complexity emphasized in the original LEAS model, but also the granularity, flexibility, and context-sensitivity of mature emotional awareness.

Furthermore, the field of emotional intelligence has proliferated diverse conceptualizations and measurement approaches, often with insufficient integration (Knopp, 2025). Salovey and Mayer's (1990) ability model emphasizes perception, facilitation, understanding, and management of emotions as distinct competencies, while Goleman's (1995) popularization expanded the construct to encompass broader personality traits and social skills. This proliferation has created conceptual confusion about what emotional awareness entails and how it relates to adjacent constructs such as alexithymia, emotional differentiation, and emotional granularity. A comprehensive assessment framework must therefore carefully delineate emotional awareness from related but distinct constructs while acknowledging their empirical interrelationships.

The practical implications of these theoretical considerations are substantial. Clinicians require assessment tools that can guide treatment selection, as different modalities may be differentially effective depending on an individual's baseline emotional awareness capacity (Lane & Smith, 2021). For instance, individuals operating primarily at somatic or action tendency levels may benefit most from body-focused or behavioral interventions, while those with more differentiated emotional schemas may be better positioned for insight-oriented approaches. Educational contexts similarly need developmentally appropriate methods for assessing emotional learning to inform social-emotional curricula. Research applications demand measures that can detect intervention effects, predict longitudinal outcomes, and illuminate mechanisms linking emotional awareness to health and adaptation.

Recent methodological innovations offer new possibilities for advancing emotional awareness assessment. Digital administration enables efficient large-scale data collection while maintaining the open-ended response format that captures individual differences in cognitive structure (Lane & Smith, 2021). Natural language processing techniques can extract richer information from verbal responses, potentially identifying dimensions beyond the original scoring criteria. Ecological momentary assessment allows examination of state variations in emotional awareness across real-world contexts, complementing trait-level measurement. Integration with neuroimaging and psychophysiological measures can validate hypothesized cognitive and neural mechanisms. These methodological advances create opportunities to develop next-generation assessment tools that are simultaneously more comprehensive, precise, and practically feasible than existing instruments.

The present study addresses these gaps by developing and validating a multidimensional framework for emotional awareness maturity that integrates insights from cognitive-developmental, constructionist, and affective neuroscience perspectives. Building on Lane and Schwartz's (1987) foundational work while incorporating the accessible framework proposed by the Dalai Lama and Ekman (2008) alongside contemporary theoretical advances, we propose an expanded model that assesses multiple facets of emotional maturity: conceptual differentiation (the granularity and specificity of emotion concepts), integrative complexity (the capacity to recognize multiple simultaneous emotional states), contextual sensitivity (awareness of how situations shape emotional responses), self-other differentiation (distinguishing one's own emotional states from those of others), and temporal dynamics (understanding how emotions evolve over time). This multidimensional approach acknowledges that mature emotional awareness involves not only hierarchical cognitive structures but also flexible, context-appropriate deployment of emotion knowledge (Dalai Lama & Ekman, 2008; Ekman & Davidson, 2019). This paper contributes to the analysis of a multidimensional framework for emotional awareness maturity, integrating cognitive-developmental, constructionist, contemplative, and affective neuroscience perspectives.

Methods

Design

This study employed a systematic literature review (SLR) design with a qualitative evidence synthesis approach, guided by the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework (Moher et al., 2009). This design was selected due to its suitability for systematically identifying, evaluating, and synthesizing existing evidence related to emotional awareness frameworks and assessment, while ensuring transparency and methodological rigor (Göcke et al., 2022; Waqas et al., 2021). The qualitative synthesis approach further enabled an in-depth conceptual examination of patterns, relationships, and theoretical developments within the literature.

Procedure

The study was conducted through two main stages: (1) systematic literature identification and selection, and (2) analysis and synthesis of the selected studies. The primary data source was the Scopus database, chosen for its comprehensive coverage of high-quality peer-reviewed literature and robust bibliometric indexing (Aghaei Chadegani et al., 2013).

The literature search was carried out for publications between August 2015 and September 2025 using the keyword "Emotional awareness framework and assessment" applied to titles, abstracts, and keywords to ensure relevance (Lim et al., 2022).

The PRISMA-guided procedure consisted of several sequential steps:

(1) defining search keywords, inclusion criteria, and study boundaries;
(2) identifying and retrieving relevant records;
(3) screening titles, abstracts, and keywords to assess relevance;
(4) reviewing full-text articles and applying eligibility criteria;
(5) documenting included studies through a structured extraction process; and
(6) organizing the selected literature for further analytical mapping and interpretation.

A total of 443 documents were initially identified prior to screening. Articles were included if they met the following criteria: (1) indexed in Scopus; (2) published between 2015 and 2025; and (3) categorized within Scopus-indexed journals (Q1–Q4). This time restriction was applied to ensure the recency and relevance of the evidence base while avoiding outdated findings.

As this study was based exclusively on secondary data from published literature, no direct participant involvement was required. Nevertheless, the review process adhered to ethical standards in research synthesis, including accurate citation practices, transparency in study selection, and avoidance of reporting bias.

Data Analysis

Data were analyzed using a qualitative synthesis strategy integrated with the SPAR-4-SLR framework (Paul et al., 2021). The analysis began with systematic data extraction and organization using a concept matrix, which facilitated structured comparison across studies in terms of constructs, methods, and findings.

Subsequently, classification analysis and network analysis were conducted to map relationships among key variables and identify emerging conceptual patterns. This process supported the development of network-based hypotheses, particularly those involving potential mediating mechanisms.

To further strengthen analytical depth, the concept matrix approach was combined with gap analysis techniques based on Müller-Bloch and Kranz (2015) and Robinson et al. (2011), allowing the identification of underexplored areas and opportunities for future research.

Finally, literature synthesis was guided by Cooper's Taxonomy (1988), ensuring that the integration of findings remained systematic, balanced, and free from selective bias. Throughout the analysis process, emphasis was placed on interpretative consistency,

transparency of categorization, and alignment between the analytical strategy and the study objectives.

Results

The systematic review identified 18 studies that met the inclusion criteria, with publication trends concentrated in the period between 2021 and 2025. Specifically, five studies were published in 2025, five in 2023, four in 2021, and two studies each in 2022 and 2024.

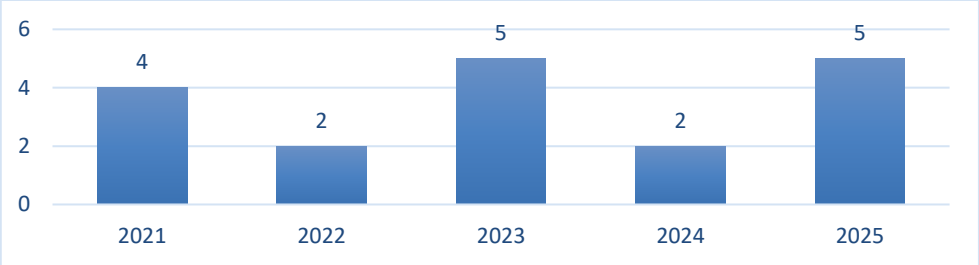

Figure 1. Study Publication Years

The geographical distribution of studies, as presented in Figure 2, indicates that the United States contributed the largest number of publications (n = 8), followed by China (n = 5). Japan, the Netherlands, and Italy each contributed two studies, while Germany, Poland, Portugal, and Brazil each contributed one study.

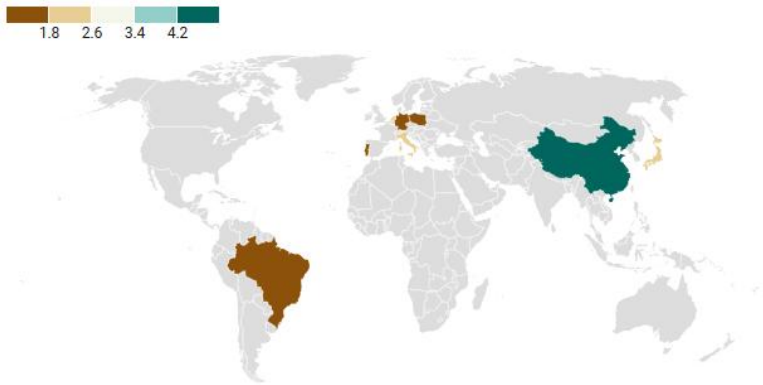

Figure 2. Country Distribution of Studies

Across the included studies, Emotional Awareness (EA) emerged as the most frequently examined variable, appearing in 14 studies. Emotion regulation and coping were identified in eight studies, while dimensions such as valence–arousal, emotional granularity and differentiation, and clarity and attention were each reported in five studies. Social-emotional competencies appeared in four studies, whereas emotional expression and communication, as well as physiological or neurological indicators, were identified in three studies. Other variables, including problem solving, mindfulness, aggression, and theoretical models of emotion, appeared less frequently.

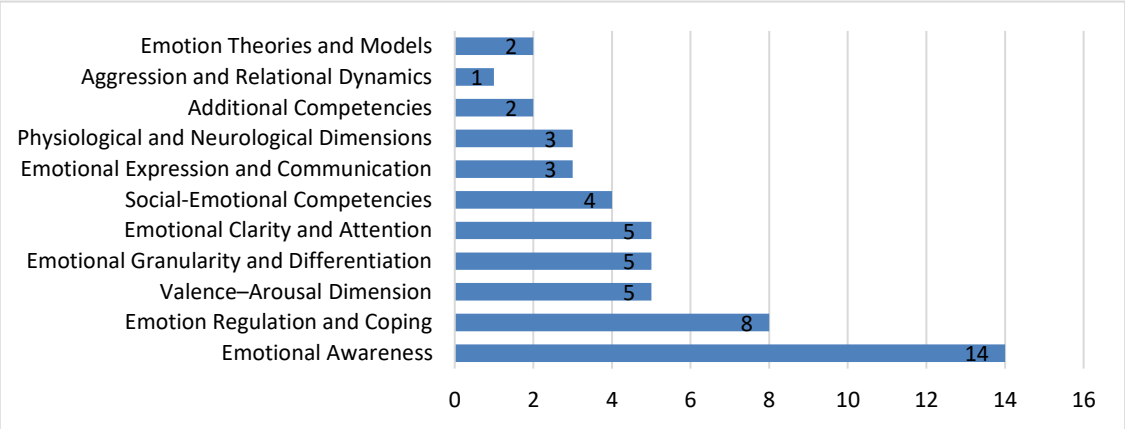

Figure 3. Variable Analysis

The synthesis further identified several recurring dimensions in emotional awareness assessment instruments. These included self-awareness and other-awareness (Chuning et al., 2025; Lane & Smith, 2021; Herpertz et al., 2023; Seibert et al., 2023; Versluis et al., 2018; Dias et al., 2025; Lane et al., 1990, 2021), emotional clarity and differentiation (Eckland et al., 2021; Moron & Biolik-Moron, 2021; Eckland & Berenbaum, 2021; Tan, 2023; Lane et al., 1990, 2021; Herpertz et al., 2023; Seibert et al., 2023), emotion regulation and expression (Dias et al., 2025; Ji & Kadri, 2025; Tan, 2023; Seibert et al., 2023), and valence arousal dominance dimensions (Zhang et al., 2025; Wang & Wang, 2025; Kutsuzawa et al., 2022; Jiang et al., 2023).

Additional dimensions included social-emotional competencies (Dias et al., 2025; Seibert et al., 2023), emotional complexity and blending (Lane et al., 1990, 2021; Herpertz et al., 2023; Versluis et al., 2018), as well as physiological and cognitive indicators (Wang & Wang, 2025; Jiang et al., 2023; Nedilko et al., 2023; Eckland et al., 2021; Moron & Biolik-Moron, 2021). Several studies also incorporated context-specific dimensions, such as hope, fear, evaluative-reactive processes, and emotional presence in learning contexts (Huang, 2024; Massin, 2023; Tan, 2023).

The findings of this systematic literature review reveal a clear increase in the number of publications on emotional awareness between 2021 and 2025, with the majority of studies published in recent years. This trend indicates a growing scholarly focus on emotional awareness and the development of multidimensional assessment frameworks across disciplines. Geographically, the studies demonstrate a wide global distribution, with the United States contributing the highest number of studies, followed by China, and additional contributions from countries such as Japan, the Netherlands, Italy, Germany, Poland, Portugal, and Brazil. This distribution reflects both the dominance of established research contexts and the expanding cross-cultural engagement in emotional awareness research.

In terms of variables, emotional awareness (EA) appears as the most frequently examined construct, followed by emotion regulation and coping, as well as dimensions such as valence-arousal, emotional granularity and differentiation, and clarity and attention. Additional variables include social-emotional competencies, emotional expression and communication,

and physiological or neurological indicators, alongside less frequently examined constructs such as problem solving, mindfulness, aggression, and theoretical models of emotion. This distribution indicates that emotional awareness research encompasses a diverse and increasingly multidimensional set of variables.

Furthermore, the analysis shows that international emotional awareness assessment instruments consistently adopt a multidimensional structure. Core dimensions include self-awareness and other-awareness, referring to the ability to recognize and understand one's own emotions and those of others (Chuning et al., 2025; Lane & Smith, 2021; Herpertz et al., 2023; Seibert et al., 2023; Versluis et al., 2018; Dias et al., 2025; Lane et al., 1990, 2021). Emotional clarity, differentiation, and granularity are also commonly identified, reflecting the capacity to distinguish and label emotions with precision (Eckland et al., 2021; Moron & Biolik-Moron, 2021; Eckland & Berenbaum, 2021; Tan, 2023; Lane et al., 1990, 2021; Herpertz et al., 2023; Seibert et al., 2023). In addition, emotion regulation and expression are frequently included as key components (Dias et al., 2025; Ji & Kadri, 2025; Tan, 2023; Seibert et al., 2023), alongside affective dimensions such as valence, arousal, and dominance (Zhang et al., 2025; Wang & Wang, 2025; Kutsuzawa et al., 2022; Jiang et al., 2023). Social-emotional competencies, including empathy and social awareness, are also present in several instruments (Dias et al., 2025; Seibert et al., 2023), as well as dimensions of emotional complexity and blending (Lane et al., 1990, 2021; Herpertz et al., 2023; Versluis et al., 2018). Physiological and cognitive aspects are incorporated in some studies through measures such as EEG, ECG, HRV, and attention to emotion (Wang & Wang, 2025; Jiang et al., 2023; Nedilko et al., 2023; Eckland et al., 2021; Moron & Biolik-Moron, 2021).

At the indicator level, emotional awareness is operationalized through diverse yet complementary measures. Indicators of self-awareness and other-awareness involve identifying, describing, and differentiating emotions in oneself and others (Lane & Smith, 2021; Lane et al., 1990, 2021; Chuning et al., 2025; Herpertz et al., 2023; Versluis et al., 2018), while emotional clarity and granularity are reflected in the specificity and depth of emotional labeling (Eckland et al., 2021; Moron & Biolik-Moron, 2021; Eckland & Berenbaum, 2021; Seibert et al., 2023; Tan, 2023). Indicators of emotion regulation and coping include the ability to manage and modify emotional responses (Dias et al., 2025; Ji & Kadri, 2025; Tan, 2023; Seibert et al., 2023), whereas affective dimensions are assessed through valence, arousal, and dominance ratings and physiological responses (Zhang et al., 2025; Wang & Wang, 2025; Jiang et al., 2023; Kutsuzawa et al., 2022). Social-relational indicators capture empathy, social awareness, and interpersonal sensitivity (Dias et al., 2025; Seibert et al., 2023), while emotional complexity indicators assess the ability to recognize mixed emotions (Lane & Smith, 2021; Lane et al., 1990, 2021; Herpertz et al., 2023; Versluis et al., 2018). Physiological indicators, including EEG, HRV, and eye-tracking, are also utilized in several studies (Wang & Wang, 2025; Jiang et al., 2023; Nedilko et al., 2023).

Implications

These findings suggest that emotional awareness assessment should be reconceptualized as an integrative and dynamic system rather than a collection of independent constructs. Practically, this implies the need for assessment models that combine self-report, behavioral observation, and objective indicators to capture the multidimensional nature of emotional functioning more accurately.

From a theoretical standpoint, the identified interrelations among dimensions provide a foundation for developing more coherent models that explicitly link awareness, regulation, and social functioning. Such integration has direct implications for intervention design, particularly in educational and counseling settings, where emotional awareness can be positioned as a core mechanism underpinning resilience, socio-emotional competence, and adaptive behavior.

In applied contexts, embedding multidimensional emotional awareness assessment within broader mental health and educational systems may enhance early identification, targeted support, and the effectiveness of preventive and developmental interventions.

Limitations and future directions

Several limitations remain evident in the current literature. First, most instruments rely heavily on self-report data and are validated within relatively homogeneous populations, limiting their generalizability across age groups, cultural contexts, and underrepresented populations.

Second, although physiological and technology-based measures (e.g., EEG, HRV, eye-tracking) have begun to emerge, their integration with psychological and social dimensions remains limited, resulting in fragmented assessment approaches.

Third, key areas such as emotional granularity, emotional blending, and the mechanisms linking emotional awareness with regulation and psychosocial outcomes are still insufficiently explored. In addition, there is a lack of cross-cultural validation and a scarcity of longitudinal studies examining developmental trajectories and intervention effectiveness over time.

Future research should focus on developing multidimensional and integrative assessment frameworks that explicitly connect core dimensions and underlying mechanisms. Greater emphasis is needed on cross-cultural adaptation and validation to ensure contextual relevance across diverse populations. Longitudinal and mechanism-oriented studies are also essential to clarify how emotional awareness develops and how it contributes to mental health, social adaptation, and achievement outcomes.

Advancing this field will require a shift toward evidence-based, context-sensitive, and developmentally informed models that can capture the complexity and contextual variability of emotional awareness in real-world settings.

Conclusion

This review highlights that international assessments of emotional awareness maturity have evolved toward a multidimensional framework integrating cognitive, affective, social, and, to a lesser extent, physiological components. Core dimensions such as self-awareness, other-awareness, emotional clarity, differentiation, and regulation consistently emerge across instruments, indicating a shared conceptual foundation, while the inclusion of social-relational and context-specific elements reflects the expanding scope of emotional awareness across domains.

Unlike previous studies that examine emotional awareness in isolated domains, this review offers a novel integrative perspective by mapping the interrelations among core dimensions and identifying potential mechanisms linking awareness, regulation, and psychosocial outcomes. Despite these advances, the overall structure of existing instruments remains uneven, particularly in capturing the complexity, integration, and developmental progression of emotional awareness across diverse contexts.

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Author Contribution Statement

MM conceived and wrote the manuscript. ESY provided direct mentorship during the preparation of the article. JN supervised and guided the entire writing process.

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