

Transformative Effects of Stress Management Training Based on Bar-On's Emotional Intelligence Model in Nursing Students: A Qualitative Study

Alejandro García¹, María Rodríguez¹, Daniel Fernández^{2*}

¹Department of Economy and Business Administration, Faculty of Economics and Business, University of Malaga, Malaga, Spain.

²Department of Applied Economics (Statistics and Econometrics), Faculty of Economics and Business, University of Malaga, Malaga, Spain.

Abstract

Nursing students are routinely exposed to demanding and stressful experiences throughout their academic training and early professional practice. Emotional intelligence is widely recognized as a central factor in managing such pressures effectively. This qualitative action research study sought to deeply examine the personal and interpersonal changes that occur in nursing students following participation in a stress management program grounded in Bar-On's mixed model of emotional intelligence. The study unfolded in three sequential phases: pre-action, action, and post-action. Twenty-five nursing students completed a structured 14-module stress management course informed by Bar-On's framework. After the training, participants took part in detailed, semi-structured interviews. The resulting narratives were systematically examined using thematic analysis to uncover key dimensions of transformation. Five principal domains aligned with the Bar-On model were identified. In the *Intrapersonal* domain, students reported growing self-awareness, reinforced self-esteem, awareness of personal limits, decisiveness, and strengthened self-direction. The *Interpersonal* domain encompassed improved emotional understanding in relationships, more mature communication approaches, and healthier relational boundaries. Under *Adaptability*, themes included cultural participation, flexible adjustment, and sensitivity to individual differences. The *Stress Management* domain reflected mindful coping, constructive help-seeking, tolerance, and greater impulse control. Finally, within *General Mood*, participants described enhanced emotional stability, optimism, and a deeper sense of inner calm. The findings suggest that stress management education designed around Bar-On's emotional intelligence model promotes meaningful emotional and behavioral development among nursing students. Embedding such programs as core elements of nursing curricula could strengthen resilience and professional preparedness.

Keywords: Emotional intelligence, Stress management, Nursing education, Action research

Introduction

In today's dynamic and demanding healthcare landscape, nursing students—who are still in the process of shaping their professional identities—are confronted with a multitude of stressors. The pressures of clinical practice, communication barriers, time constraints, ethical dilemmas, and uncertainty about future roles all contribute to heightened stress levels during their education [1]. Consequently, the preparation of nursing students must go beyond imparting theoretical and technical knowledge to include the cultivation of emotional and psychological competencies. The ability to manage stress effectively depends not only on external circumstances but also on internal resources, particularly emotional competence. Within this framework, emotional intelligence (EI) has emerged as a key construct underpinning effective stress management [2].

Corresponding author: Daniel Fernández

Address: daniel Department of Applied Economics (Statistics and Econometrics), Faculty of Economics and Business, University of Malaga, Malaga, Spain.

E-mail: ✉ fernandez87@hotmail.com

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Emotional intelligence is generally understood as a multifaceted capacity encompassing the recognition, understanding, and regulation of one's own emotions, alongside the ability to perceive and respond appropriately to the emotions of others [3].

Bar-On's (2006) mixed model of emotional intelligence offers a comprehensive conceptualization of this construct, organizing it into five dimensions: intrapersonal skills, interpersonal skills, adaptability, stress management, and general mood [4]. This multidimensional framework provides a valuable lens through which to examine complex psychological phenomena such as coping with stress. Empirical research consistently shows that individuals with higher levels of emotional intelligence are more adept at handling stressful experiences, demonstrate lower burnout rates, and report greater overall satisfaction with life [5].

Bar-On's approach is distinguished by its integrative perspective, combining cognitive, affective, and behavioral competencies such as emotional awareness, self-regulation, and social adaptability [4]. This holistic structure promotes both personal insight and effective interpersonal communication—skills that are particularly essential for nursing students, who frequently experience emotional fatigue, academic overload, and stress in clinical settings [6,7]. Emotional intelligence has been identified as a crucial factor influencing how nursing students manage anxiety, burnout, and stress. Moreover, it is strongly associated with key professional attributes such as empathy, impulse control, self-reflection, and decision-making—abilities that, in turn, enhance clinical performance and patient care [8,9].

A growing body of literature supports the notion that emotional intelligence is not a fixed trait but a developable skill, underscoring the importance of structured educational interventions [10–13]. Nursing students with higher emotional intelligence typically demonstrate greater professional commitment, improved critical thinking, enhanced well-being, and resilience in the face of stress [14–16]. Considering that nursing is inherently a high-stress profession, cultivating emotional intelligence during education is vital for both academic success and future clinical competence [12]. For students still transitioning into professional roles, opportunities to develop emotional maturity and self-awareness provide a significant advantage [17]. Research increasingly affirms that emotional intelligence serves as a decisive determinant in an individual's capacity to manage stress effectively [18,19].

Although numerous quantitative studies have examined correlations between emotional intelligence and stress or coping mechanisms, qualitative investigations exploring the internal processes of transformation through EI-based training remain limited. In particular, there is a lack of action research that captures how modular stress management programs grounded in Bar-On's mixed model facilitate personal and behavioral change—such as improved mindfulness, adaptive coping, and boundary-setting. This study seeks to address this gap by providing an in-depth examination of both the outcomes and underlying mechanisms of transformation fostered by such training. It is proposed that stress management education structured around emotional intelligence can serve as a powerful pedagogical tool by heightening emotional awareness, expanding coping repertoires, and reinforcing resilience [20,21].

Accordingly, the present study aimed to investigate how a stress management training program designed on the basis of Bar-On's mixed model of emotional intelligence fosters transformation among nursing students. The central research question guiding this inquiry was: *What is the nature of the transformation experienced by nursing students through participation in a stress management training program based on Bar-On's mixed model of emotional intelligence?*

Materials and Methods

Research design

This research employed a qualitative action research design to explore the changes experienced by nursing students following participation in a stress management training program structured around Bar-On's mixed model of emotional intelligence. Action research represents a collaborative and systematic inquiry process in which participants actively engage in addressing a specific issue within their own context. It serves two key purposes: first, to generate practical knowledge beneficial to the target group, and second, to empower participants through the development of awareness and the application of knowledge in real-life settings [22]. The current study primarily emphasized the latter objective—enhancing nursing students' awareness of stress management and fostering their emotional intelligence growth.

Action research is inherently intervention-focused, seeking to facilitate behavioral change, reduce resistance to new practices, and promote empowerment through experiential learning [23]. In this study, a *technical/scientific/collaborative* action research model was applied. This model aims to improve individuals' behaviors through a theoretically grounded intervention [24]. The researcher assumed multiple roles—as planner, facilitator, and guide—working collaboratively with the participants to support learning and transformation throughout the process [22].

The rationale for adopting a qualitative action research approach was to capture *how* the intervention operates—identifying the processes of change, the nature of participants' experiences, and the mechanisms underlying

transformation—rather than to quantify outcomes. The qualitative framework's ability to generate process-oriented, context-rich, and interpretive insights was considered essential for uncovering the dynamics of educational interventions. The study was designed and reported in accordance with the COREQ (Consolidated Criteria for Reporting Qualitative Research) checklist, which provides internationally recognized standards for qualitative research transparency and rigor [25].

Participants

The study involved 25 second-year nursing students enrolled at a public university who consented to participate voluntarily. Second-year students were purposefully selected because this stage represents a pivotal period of transition, characterized by initial exposure to clinical practice, the development of professional identity, and increased encounters with stress-inducing situations.

A purposeful sampling strategy was employed, a common approach in qualitative inquiry, to select participants who expressed a clear interest in improving their stress management and emotional intelligence skills and who demonstrated motivation for active engagement in the training. The participants were between 19 and 23 years old, 21 identified as female, and all were single, residing in dormitories. None of the students had previously received formal stress management training. **Table 1** summarizes the demographic characteristics of the participants.

Table 1. Personal characteristics of the participants.

P. No	Age	Gender	Marital status	Place of residence	Having received training on stress management before
1	21	Female	Single	Dormitory	No
2	20	Male	Single	Dormitory	No
3	20	Male	Single	Dormitory	No
4	21	Female	Single	Dormitory	No
5	20	Female	Single	Dormitory	No
6	21	Female	Single	Dormitory	No
7	20	Female	Single	Dormitory	No
8	19	Female	Single	Dormitory	No
9	19	Female	Single	Dormitory	No
10	23	Female	Single	Dormitory	No
11	20	Female	Single	Dormitory	No
12	21	Female	Single	Dormitory	No
13	21	Female	Single	Dormitory	No
14	20	Female	Single	Dormitory	No
15	21	Female	Single	Dormitory	No
16	19	Female	Single	Dormitory	No
17	20	Female	Single	Dormitory	No
18	22	Female	Single	Dormitory	No
19	21	Female	Single	Dormitory	No
20	20	Female	Single	Dormitory	No
21	21	Female	Single	Dormitory	No
22	20	Male	Single	Dormitory	No
23	21	Female	Single	Dormitory	No
24	21	Female	Single	Dormitory	No
25	21	Male	Single	Dormitory	No

Training program and implementation process

The stress management intervention applied in this research was a systematically organized, evidence-informed educational program designed to foster emotional intelligence and strengthen participants' strategies for coping with stress. The conceptual basis of the program was drawn from Reuven Bar-On's mixed model of emotional intelligence, which conceptualizes EI as an integration of emotional, social, and adaptive competencies that enable individuals to respond effectively to the demands of their environment.

Bar-On's (2006) model outlines five interrelated domains—intrapersonal skills, interpersonal skills, adaptability, stress management, and general mood—each representing a vital aspect of emotional functioning. These domains provided the blueprint for structuring the program's modules, guiding the content, activities, and reflective exercises implemented during the training. Through this multidimensional framework, the program sought to help nursing students develop both self-regulatory capacities and interpersonal understanding within their academic and clinical contexts.

The intervention was executed through a three-phase action plan comprising pre-action, action, and post-action stages (**Figure 1**). This cyclical model, characteristic of action research, facilitated a continuous process of

implementation, observation, and reflection, enabling participants to actively engage in their own learning and transformation while allowing the researcher to adapt the process responsively as insights emerged.

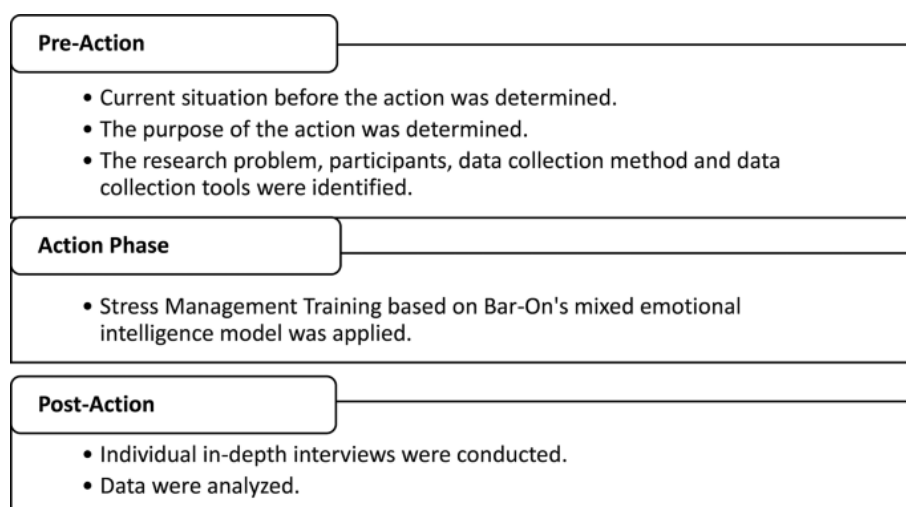


Figure 1. Research action plan

Phase 1: Identification and planning (Pre-Action)

The initial phase focused on establishing the framework for the study by systematically defining the research problem, participant profile, data collection approach, and analytic tools. During this stage, the central focus of the intervention was clarified through observations and informal consultations, which revealed that nursing students faced considerable challenges in coping with stress and in managing their emotional responses effectively. Consistent with findings in the existing literature, emotional intelligence development has been shown to enhance stress regulation and psychological resilience among nursing students [26,27].

Based on these insights, a stress management training program grounded in Bar-On's mixed model of emotional intelligence was designed. The five key dimensions of the model—*intrapersonal skills, interpersonal skills, adaptability, stress management, and general mood*—served as the conceptual backbone for structuring the modular curriculum. During this stage, the instructional techniques, assessment instruments, and evaluation procedures were also formulated to ensure coherence between theoretical objectives and practical application.

Phase 2: Implementation of action (Action Phase)

In the second phase, the intervention was carried out over a 14-week period. Each module was delivered in two classroom sessions (including a short break) and followed a modular and thematic progression consistent with Bar-On's emotional intelligence model [4]. The program was designed to foster initial self-awareness and progressively translate this awareness into emotional and behavioral skills.

A variety of experiential learning activities—such as reflective journaling, empathy-building exercises, role-play sessions, and simulated stress scenarios—were employed to reinforce active engagement (**Table 2**). A notable strength of the program was its emphasis on practical application: rather than remaining at a theoretical level, participants were encouraged to integrate emotional intelligence concepts into everyday life and clinical interactions, promoting tangible skill development and real-world relevance.

Table 2. Stress management training based on Bar-On's blended emotional intelligence model.

Module	Lesson Topic	Learning Objective	Key Content	Teaching Methods
1	Emotional Intelligence and Stress Coping	Understand the Bar-On EQ model and program framework	EQ definition, five core components, stress-EQ link	Slides, group icebreakers, mind mapping
2	Identifying Emotions Under Stress	Build self-awareness of emotional states	Recognizing feelings, internal cues, stress effects on mood	Emotion diary, mindfulness practice
3	Building Self-Trust to Handle Stress	Boost self-confidence and efficacy	Self-value, boundary-setting, goal-oriented coping	Values mapping, SMART goal exercise
4	Communicating Emotions During Stress	Express feelings assertively and constructively	Emotional vocabulary, saying "no," limit-setting	Role-playing, emotion cue cards

5	Empathizing in High-Stress Interactions	Read others' emotions and manage relationships	Empathy levels, active listening, tough conversations	Empathy circles, scenario breakdown
6	Taking Accountability in Crises	Demonstrate social awareness in tense situations	Social roles, team dynamics, ethical responses	Group tasks, value-based discussions
7	Solving Stress-Related Challenges	Master structured problem-solving	Perception reframing, logical steps, creative solutions	Brainstorming, case studies
8	Adapting Flexibly to Stressful Changes	Cultivate cognitive and behavioral adaptability	Handling uncertainty, perspective shifts, flexibility	Role reversal, stress scenario review
9	Detecting Early Stress Signals	Identify physical and psychological warning signs	Bodily stress responses, triggers, early indicators	Body scan meditation, stress log
10	Balanced Daily Stress Management	Adopt sustainable wellness habits	Time prioritization, sleep, diet, exercise	Daily planner, relaxation techniques
11	Controlling Impulses in Stressful Moments	Regulate reactive behaviors effectively	Impulse cycle, pause-and-respond, decision filters	STOP method, decision trees, role-play
12	Maintaining Optimism Amid Adversity	Foster positive mindset and emotional balance	Gratitude, reframing, affirmations	Gratitude journal, positive statement cards
13	Integrating Stress Skills into Real Life	Apply all skills in a unified personal strategy	Personal case review, skill synthesis	Real-life case application, peer feedback
14	Assessing Progress & Future Planning	Evaluate growth and design ongoing plan	Self-assessment, personalized action steps	Reflection feedback, action plan drafting

Phase 3: Evaluation (Post-Action)

In action research, continuous monitoring and reflection are essential for assessing the nature and extent of change brought about by the intervention. In this phase, the evaluation of outcomes was conducted through in-depth individual interviews complemented by field observations and reflective notes.

The research team comprised two experts in psychiatric nursing. The first researcher participated actively in every stage of the project—as designer, facilitator, and observer—by engaging directly with the students, making systematic observations, collecting outputs, and conducting individual interviews. As a PhD-qualified faculty member at the host institution, her professional expertise and academic background contributed to establishing trust and effective communication with participants.

However, to minimize possible power imbalances arising from her institutional affiliation, several precautionary strategies were implemented:

- Participation was strictly voluntary, and students were assured that involvement would have no bearing on their academic evaluation;
- The second researcher attended all interviews as an independent observer;
- Both researchers performed independent data coding, with discrepancies resolved through consultation with a third expert; and
- Member checking was carried out by providing summaries to participants for validation.

Additionally, during the program period, no exams or performance assessments were administered to avoid any sense of obligation or evaluation pressure.

The second researcher, who also holds a PhD in psychiatric nursing and serves at another public university, participated in the design of the study and co-facilitated interviews while maintaining detailed observational notes. Both researchers had prior training and experience in stress management and qualitative research methodologies, which contributed to methodological rigor and reflexivity throughout the study.

Data collection process

Data collection began approximately two weeks after the conclusion of the action phase and was carried out through individual, face-to-face interviews. Interview schedules were arranged in advance according to participants' availability, and all sessions were conducted in a quiet, comfortable room within the nursing faculty. Prior to each interview, audio recorders, writing materials, and consent forms were prepared. Written consent for both participation and recording was obtained from every student.

A semi-structured interview format was employed to allow for both standardized questioning and flexible, interactive dialogue [28]. Alongside a brief demographic form (covering age, gender, marital status, living

arrangements, and prior exposure to stress management training), participants were asked open-ended questions aligned with the themes in **Table 3**.

The interview guide was developed by the researchers based on Bar-On's mixed model of emotional intelligence and reviewed by two experts with doctoral degrees in psychiatric nursing to establish content validity. A pilot test was conducted with two nursing students to ensure clarity and comprehensibility; as neither the experts nor the pilot participants suggested revisions, the finalized version was used with the main sample.

Interviews were conducted by the first researcher with the second researcher present as an observer. Throughout the training process, both researchers also recorded field notes documenting participants' emotional expressions, group interactions, and engagement with learning activities. Each interview lasted approximately 45–50 minutes, during which participants were encouraged to express their perspectives freely. At the conclusion of each session, participants were invited to add final reflections or questions, after which interviews were closed with appreciation for their contribution.

No repeat interviews were necessary, as data saturation was reached once no new themes emerged. All interviews were transcribed verbatim by the first researcher, and data were anonymized in accordance with ethical standards. Each participant was assigned a code (P1, P2, P3, ...) to maintain confidentiality during analysis.

Table 3. Semi-structured interview form.

Question Number	Interview Question
1	How has the Stress Management training helped you develop Intrapersonal Skills (specifically emotional self-awareness, self-confidence, self-esteem, self-realization, and independence)?
2	In what ways has the training improved your Interpersonal Skills (particularly in building relationships, showing social responsibility, and practicing empathy)?
3	How did the program enhance your Adaptability (in terms of problem-solving and cognitive/behavioral flexibility)?
4	What impact has the training had on your Stress Management abilities (especially stress tolerance and impulse control)?
5	How has the training influenced your General Mood (with regard to happiness and optimism)?

Data analysis

Data were analyzed using the thematic analysis framework proposed by Braun and Clarke [29]. All interviews were transcribed verbatim and examined manually to ensure close engagement with the data. The five primary dimensions of Bar-On's mixed model of emotional intelligence served as the guiding thematic framework. Within each dimension, subthemes were inductively generated from participants' narratives, capturing emotional, cognitive, and behavioral changes reflected in their experiences.

The analytical procedure followed these sequential steps:

1. Immersion in the data to achieve comprehensive familiarization
2. Systematic generation of initial codes
3. Grouping of related codes into preliminary themes
4. Reviewing, refining, and clearly defining each theme
5. Aligning emergent themes with the five dimensions of Bar-On's model
6. Synthesizing, interpreting, and reporting the findings

Each major theme was supported by representative quotations that illustrated participants' developmental changes and insights. The entire analytical process was performed collaboratively and systematically by the research team to maintain depth and consistency in interpretation.

Trustworthiness and rigor

To ensure methodological integrity, the study adhered to Lincoln and Guba's [30] criteria for trustworthiness: credibility, transferability, dependability, and confirmability [22].

• **Credibility:** Data triangulation was achieved through the integration of interviews and observational notes. Interview transcripts were shared with participants for verification (member checking). Prolonged researcher engagement, rich verbatim quotations, and sustained interaction throughout the training enhanced data credibility.

• **Transferability:** The research context, participant characteristics, sampling strategy, data collection tools, and analytic procedures are described in detail, enabling readers to assess applicability to similar educational or clinical contexts.

• **Dependability:** Coding was performed independently by two researchers who compared and discussed coding results to identify convergence and divergence. A third expert reviewed the final coding scheme. Intercoder reliability was quantified using **Cohen's Kappa coefficient**, yielding a value of **0.85**, which, according to Landis and Koch's (1977) classification [31], represents "**almost perfect agreement.**" This high level of agreement underscores the consistency and reliability of the analytic process.

• **Confirmability:** All raw data—including transcripts, observational notes, recordings, and coding files—were reviewed by an external expert to minimize researcher bias and ensure objectivity. Data were securely archived to allow for potential external auditing and future verification.

Ethical considerations

Ethical approval for the study was obtained from the Muğla Sıtkı Koçman University Ethics Committee for Medicine and Health Sciences – 2 (Sports & Health) (Date: 03.09.2024, Decision No: 240100/103). Institutional permission was also secured from the faculty where the study was conducted.

Informed consent was collected from all participants after they were provided with detailed information regarding the study’s purpose, procedures, and confidentiality measures. Participation was entirely voluntary, and students were informed of their right to withdraw at any stage without consequence.

Audio recordings and transcripts were stored securely, and participants were anonymized using unique codes (e.g., P1, P2, P3). The principles of voluntariness, confidentiality, and nonmaleficence were upheld throughout the research process. Participants were notified prior to each observation session. All quotations included in the report were anonymized to maintain privacy. The study was conducted in full accordance with the ethical principles outlined in the revised Declaration of Helsinki.

Results and Discussion

This section presents the results derived from interviews with nursing students who participated in the stress management training program. The data were analyzed through thematic analysis guided by Bar-On’s mixed model of emotional intelligence, which provided the framework for identifying five principal themes. In addition to the model’s predefined categories, several new subthemes emerged, reflecting deeper dimensions of students’ emotional and behavioral transformation. These emergent subthemes are illustrated through participant quotations and are summarized in **Figure 2** and **Table 4**.

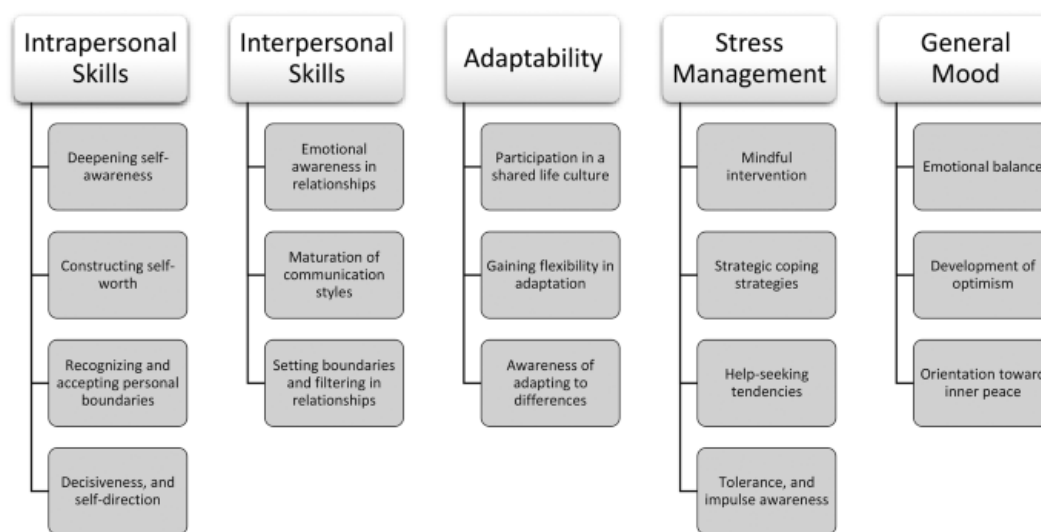


Figure 2. Main and sub-themes

Table 4. Main and sub-themes and quotations from participants’ views

Main Theme	Sub-Theme	Focused Codes	Participant Quotes
Intrapersonal Skills	Heightened self-insight	• Accountability • Refusing to let stress dominate • Greater personal awareness	P1: “I recognize my duties clearly. Stress no longer dictates how I live.”
	Building personal value	• Self-respect • Acknowledging deservingness • Craving appreciation	P14: “It taught me to honor myself and convinced me I merit respect from others.”
	Establishing and honoring limits	• Health first • Rational mindset • Avoiding minor fixations • Boundary enforcement	P6: “I now put my well-being ahead and think clearly. I avoid obsessing over trivial matters.”
	Resolve and self-guidance	• Resolve • Focus on objectives • Drive to act	P8: “I’m committed to pursuing my aspirations and taking required steps.”
Interpersonal Skills	Emotional depth in connections	• Richer emotional bonds • Deeper friendships • Empathy growth	P7: “I’ve begun creating more meaningful emotional ties with friends.”

	Evolving interaction approaches	• Stress impact on bonds • Positive dialogue • Shift in expression	P23: "Excess stress harms connections... I now respond more helpfully."
	Boundary-setting and relationship curation	• Assessing ties • Cutting unneeded links • Healthy limits	P4: "I terminated certain connections and appreciated the worthwhile ones."
Adaptability	Engaging in collective norms	• Peer alignment • Collaboration insight • Community fitting	P22: "Moments needing sync with others are common—I see this as key."
	Cultivating adaptive agility	• Embracing imperfections • Self-kindness • Adaptability	P4: "It's fine if I can't handle everything. I treat myself gently."
	Sensitivity to varied adjustments	• Surroundings fitting • Difference acceptance • Adaptation recognition	P12: "We mold ourselves to our surroundings—that's adaptation."
Stress Management	Intentional self-soothing	• Mindfulness • Self-control • Perspective-based calm • Emotion mastery	P1: "Noticing my overload, I calm myself by considering those in tougher spots."
	Tactical response methods	• Composure • Issue segmentation • Structured plans • Resolution abilities	P4: "Keep steady. Divide it. Handle it. Jotting and tackling small issues works wonders."
	Support-seeking behaviors	• External aid • Abandoning solo efforts • Help reception	P8: "I handled things alone before, but now I value others' support."
	Resilience and reaction monitoring	• Stress endurance • Impulse management • Calm cultivation	P21: "Stress used to tighten me up, but I now face it more serenely."
General Mood	Mood equilibrium	• Stress normalization • Even-keeled view • Practical embrace	P4: "Stress isn't wholly negative. Life includes challenges. I cope some days, not others."
	Fostering positivity	• Shift from gloom to brightness • Optimism buildup • Upbeat mindset	P8: "It changed me from a negative, downcast individual to one who spots positives."
	Pursuit of inner calm	• Serenity • Ease	P18: "Better stress handling leaves me more relaxed and content."

Main Theme 1: Personal skills

This theme captures the participants' evolving self-awareness, internal perceptions, and attitudes toward their personal identities. Analysis of interview data revealed four subthemes that illustrate how students' emotional insight, self-worth, and self-direction developed through the training process.

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Deepening inner awareness

The stress management training fostered a heightened awareness of participants' inner emotional landscapes. Students described gaining the ability to recognize, interpret, and regulate their emotions more effectively. They expressed a clearer understanding of the origins of their stress and emotions, which facilitated greater emotional balance.

- **P1:** "I am aware of my responsibilities. I no longer shape my life around stress."
- **P16:** "I discovered aspects and emotions of myself I hadn't noticed before. I learned to manage them."
- **P24:** "It helped me understand and manage my emotions better."

During the sessions, several students were observed writing reflective notes and pausing for moments of contemplation—nonverbal cues suggesting active internal reflection and growth in emotional awareness.

Reconstructing self-worth

Students described a renewed sense of self-value and respect that emerged from the program. Improvements were noted in self-respect, self-care, and the assertion of personal boundaries. The intervention appeared to strengthen students' recognition of their inherent worth and right to self-protection.

- **P2:** "It helped me not tolerate violations of my personal space and to stand up to disrespect."
- **P25:** "I learned to value myself more, to make time for myself."
- **P14:** "It made me aware of respecting myself and made me believe that I deserve respect in this world."

Recognizing and accepting personal limits

Many participants reflected on their previous tendency to set unrealistic standards for themselves in stressful situations. Through the training, they learned to approach stress with greater self-compassion, understanding that recognizing personal limits is a key part of emotional resilience.

- **P4:** "I used to feel inadequate in stressful situations, but the course showed me that it is natural—what matters is managing stress."
- **P6:** "I learned to prioritize my health and think logically. I learned not to overthink small things."

This self-acceptance was closely tied to the development of emotional regulation and more realistic self-expectations.

Strengthening determination and self-direction

Participants emphasized that the program enhanced their sense of agency, goal orientation, and persistence. They described becoming more self-motivated and purposeful in their academic and personal pursuits.

- **P3:** "It supported me in achieving the goals I set for real life."
- **P8:** "I'm determined to achieve my dreams and goals and will do what's necessary."
- **P16:** "I learned that age, time, or place do not matter—anyone can achieve a lot at 70 or 18."

Overall, this theme highlights how emotional intelligence training nurtured students' internal growth, equipping them with self-awareness, confidence, and direction in managing stress and personal development.

Main Theme 2: Interpersonal skills

This theme reflects the participants' evolving relational awareness and behavioral changes in their interactions with others. The findings demonstrate improvements in empathy, communication, and boundary-setting—key aspects of emotionally intelligent interpersonal functioning.

Enhanced emotional awareness in relationships

Students reported becoming more attuned to the emotions of others and learning to respond with empathy and sensitivity. They described forming deeper, more emotionally balanced relationships and demonstrating greater patience and understanding in social interactions.

- **P7:** "I started forming emotionally rich relationships with my friends."
- **P4:** "I can now understand someone's excitement or stress from facial expressions."
- **P20:** "I learned to communicate empathetically and without stress."

This heightened emotional awareness contributed to a more supportive and harmonious social environment among peers.

Maturation of communication styles

The training encouraged students to adopt more open, constructive, and reflective communication approaches. Many participants expressed improvements in expressing themselves clearly, listening actively, and maintaining emotional balance during interactions—skills relevant both personally and professionally.

- **P6:** "I started maintaining balanced relationships by valuing people."
- **P14:** "I learned that I need to communicate with others."
- **P23:** "Too much stress negatively affects relationships... now I act more constructively."

These developments suggest that students were internalizing the principles of emotional intelligence in their daily communication patterns.

Setting boundaries and filtering relationships

Participants also reported learning to define personal boundaries and distinguish between supportive and toxic relationships. This newfound selectivity was perceived as essential for maintaining emotional well-being and autonomy.

- **P4:** "I ended some relationships and realized the value of others."
- **P6:** "If the person doesn't understand, I move on."
- **P17:** "I learned to be independent without overstepping someone else's boundaries."

Through these realizations, students developed greater emotional clarity and resilience in managing interpersonal challenges.

Main Theme 3: Adaptability

This theme reflects the participants' ability to adjust to diverse academic, social, and personal circumstances. The findings indicate that the training enhanced students' flexibility, teamwork, and openness to differences, supporting their capacity to adapt effectively in complex environments.

Engagement in a Culture of shared living

Students reported becoming more collaborative and constructive in group work and classroom interactions. The training encouraged mutual responsibility and harmony in collective settings, helping participants recognize the importance of cooperation for both personal and group success.

- **P22:** "Situations requiring harmony with peers happen often—I've learned this is one of the most important things."

- **P3:** “I learned that full focus and harmony are not only personal needs but essential for group and societal success.”

Developing flexibility in adaptation

Participants emphasized gaining emotional and cognitive flexibility when faced with challenges. They described being more capable of adjusting to changing circumstances, managing their time and tasks effectively, and showing self-kindness during difficult moments.

- **P2:** “Now I do my best and own my efforts.”
- **P4:** “Sometimes I can't do it all, and that's okay. I can be kind to myself.”

This growing adaptability appeared to reduce emotional strain and promote self-compassion, allowing students to approach stressors with a more balanced perspective.

Awareness of adapting to differences

Students reported becoming more tolerant and empathetic toward individual differences, acknowledging that understanding others' perspectives and stress tolerance levels was integral to adaptation.

- **P20:** “Adaptation means adjusting to everyone... As we manage stress, we gradually adapt to each other.”
- **P12:** “We shape ourselves according to our environment—this is how we adapt.”

This awareness reflects a shift toward greater social sensitivity and flexibility, crucial for professional collaboration in nursing.

Main Theme 4: Stress management

This theme explores how students began to recognize and regulate their stress through mindful awareness, coping strategies, and support-seeking behaviors. The findings highlight a significant transformation in how participants perceive, respond to, and manage stress.

Mindful intervention

Students became more conscious of their physiological and emotional reactions to stress, allowing for more deliberate and reflective responses. This self-awareness emerged as a central mechanism for emotional regulation.

- **P1:** “When I realize how physically and mentally overwhelmed I am, I try to self-soothe by thinking of those worse off.”
- **P10:** “I discovered that I'm exposed to more emotional distress than necessary under pressure.”

Strategic coping techniques

Participants actively applied the techniques introduced in the program—such as breathing exercises, positive affirmations, and breaking tasks into manageable parts. These strategies enabled them to manage stress more effectively and maintain composure during challenging situations.

- **P4:** “Stay calm. Break it down. Manage it. Writing down small problems and solving them truly helps.”
- **P11:** “I tried breathing exercises and learned they work.”
- **P16:** “I learned to cope more effectively through breathing, activities, and similar methods.”

Field observations supported these findings: students appeared more relaxed and engaged during group exercises and role-playing sessions, often smiling and interacting more freely.

Seeking support

Participants recognized the importance of sharing their stress experiences and seeking help when needed. They reported greater reliance on social and emotional support networks, including friends, family, and professionals.

- **P1:** “When stress is overwhelming, I started talking to family and friends, valuing their opinions.”
- **P8:** “I used to solve problems on my own, but now I realize that social support helps.”

Observation data further indicated that previously reserved students became more communicative over time, reflecting a growing comfort in seeking and offering support.

Awareness of tolerance and impulsivity

Students described gaining awareness of their impulsive reactions under pressure and learning to respond more thoughtfully. Emotional control and tolerance were key outcomes of the program.

- **P10:** “I used to panic under stress and struggle to control it... now I see that stress is normal.”
- **P21:** “I'd tense up under stress, but now I approach situations more calmly.”

These accounts suggest that emotional intelligence training helped participants cultivate composure and reduce reactivity in stressful contexts.

Main Theme 5: General mood

This theme encompasses students' psychological well-being, emotional stability, and overall outlook on life. The findings show that participants experienced improvements in emotional balance, optimism, and a sense of inner peace.

Cultivating emotional balance

Students emphasized that the goal of stress management is not to eliminate stress entirely, but to form a healthier relationship with it. They recognized that moderate stress can be functional, while excessive stress must be managed.

- **P11:** "Stress isn't bad, but too much harms you physically and mentally."
- **P4:** "Stress isn't always bad. Life has hardships. Sometimes I manage, sometimes I don't."

This balanced understanding reflects emotional maturity and a realistic approach to life's challenges.

Development of optimism

The program appeared to foster a more positive and hopeful mindset. Students described becoming less pessimistic and more inclined to interpret situations constructively.

- **P8:** "It transformed me from a pessimistic and depressive person into someone who sees the bright side."
- **P23:** "I became more optimistic toward people and events."
- **P24:** "My positive outlook has increased."

Turning toward inner peace

Participants associated emotional peace with increased self-awareness, emotional regulation, and acceptance. As they learned to manage stress more effectively, they reported feeling calmer and more centered.

- **P25:** "I learned to be calmer and to manage myself."
- **P18:** "Now that I manage stress better, I feel more at ease and well."

This study examined how a stress management training program structured around Bar-On's mixed model of emotional intelligence contributed to the personal and emotional transformation of nursing students. The findings revealed significant progress across all five dimensions of the Bar-On model—intrapersonal skills, interpersonal relationships, adaptability, stress management, and general mood—demonstrating the multidimensional impact of the intervention.

The training enabled students to become more attuned to their emotional states, deepening their ability to recognize, interpret, and reflect upon their feelings. This improvement aligns closely with Bar-On's *emotional self-awareness* dimension [4] and supports earlier findings that heightened emotional awareness allows individuals to handle stress more constructively [32]. Participants also reported enhanced self-worth, confidence, and self-perception, reflecting growth in the *self-regard* and *self-actualization* components of Bar-On's model. Such developments are well-documented as protective factors for emotional stability and psychological resilience [5, 33]. Moreover, the recognition and acceptance of personal limitations demonstrated participants' growing self-compassion—an essential feature of adaptive emotional intelligence. Their strengthened determination and goal orientation further indicate increased *self-direction*, which is associated with improved coping and motivation in stressful contexts [34].

Improvements were also evident in the interpersonal domain. Students became more perceptive of others' emotional cues and responded with greater empathy, mirroring the *empathy* and *interpersonal relationship* elements of Bar-On's framework. They reported better communication, a more balanced approach to social interactions, and an enhanced ability to establish healthy relational boundaries. These results echo prior research showing that emotional intelligence-based education improves empathy, communication competence, and emotional balance in social settings [5,18,35,36]. By learning to set limits and disengage from harmful relationships, participants demonstrated emotional regulation and social discernment—key capacities for sustaining well-being in high-stress professional environments like nursing.

In the domain of adaptability, participants exhibited growth in flexibility, collaboration, and tolerance for diversity. They described becoming more open to teamwork, managing group dynamics effectively, and developing a stronger sense of shared responsibility—an outcome consistent with Bar-On's *flexibility* dimension and essential for interprofessional cooperation in healthcare [37]. The enhanced ability to manage time, plan tasks, and adapt to challenges indicates both cognitive and emotional adaptability [38]. Furthermore, their growing appreciation of individual differences suggests an evolution toward cultural sensitivity and social inclusivity, aligning with the interpersonal expectations of modern nursing practice [39].

Changes in *stress management* were particularly notable. Students became more conscious of their physical and emotional stress responses and began employing mindfulness-oriented strategies to regulate them—findings consistent with the *stress tolerance* element of Bar-On's model and with results from mindfulness-based emotional intelligence programs [40,41]. The use of concrete techniques such as breathing exercises, self-affirmation, and problem segmentation illustrates the translation of emotional awareness into practical coping

mechanisms. Participants' recognition of the value of seeking social support further reflects development in the *social responsibility* component of the model. Consistent with previous studies, social connectedness was found to strengthen emotional resilience and coping capacity [42,43]. The observed increase in impulse awareness and control also indicates maturity in emotional regulation, addressing a common developmental challenge in young adults [44].

Lastly, the findings related to *general mood*—including optimism, balance, and inner peace—suggest a broader enhancement of psychological well-being. Students reported that rather than attempting to eliminate stress, they learned to coexist with it in a healthier and more balanced way. This reappraisal process aligns with the *happiness* and *optimism* subcomponents of Bar-On's model and supports evidence that positive mood orientation contributes to greater life satisfaction and academic achievement [45, 46]. The reported sense of calm and inner peace also reinforces the idea that emotional regulation extends beyond interpersonal interactions to foster internal harmony and self-integration [47].

Collectively, these outcomes demonstrate that structured emotional intelligence-based interventions can bring about profound emotional and behavioral transformations among nursing students. The program not only enhanced participants' awareness and coping capacity but also strengthened resilience, communication, and adaptability—competencies essential for both professional development and personal well-being. The findings emphasize the importance of integrating emotional intelligence and stress management training as fundamental components of nursing curricula to better prepare future healthcare professionals for the emotional demands of clinical practice.

Strengths and limitations

This study has several limitations. First, it was conducted within a local context—specifically in Türkiye and within a single university—meaning that participant characteristics and educational structures may reflect culturally specific influences. However, the core stressors experienced by nursing students, such as high workload, communication challenges, and uncertainty, are common across many educational and clinical environments. Therefore, the underlying mechanisms of the intervention are likely transferable to other contexts. Nonetheless, cultural adaptation and content re-evaluation are recommended before implementation in different cultural settings. Future research should consider comparative or multi-center qualitative and mixed-method designs to enhance generalizability and cross-cultural validity.

Despite these limitations, the study offers several notable strengths. It provides a structured and empirically grounded intervention that enhances emotional intelligence, promotes self-awareness, and supports mental health among nursing students. The use of a qualitative action research design adds methodological originality, allowing a deeper exploration of students' developmental processes beyond what purely quantitative approaches typically capture. This design choice also enriches understanding of how emotional intelligence training can be dynamically integrated into educational practice.

Conclusion

This study explored the transformative effects of a stress management training program based on Bar-On's mixed model of emotional intelligence among nursing students. The results demonstrated that the program fostered meaningful changes in students' knowledge, attitudes, awareness, and behaviors across all domains of the Bar-On framework.

In the domain of personal skills, participants improved in emotional recognition, self-awareness, self-esteem, and acceptance of personal boundaries—underscoring the foundational importance of self-knowledge in managing stress. In interpersonal skills, students became more empathetic, communicated more effectively, and developed healthier relational boundaries, which reduced stress in social interactions. Regarding adaptability, participants demonstrated greater flexibility, openness, and tolerance toward differences, reflecting enhanced emotional regulation and conflict resolution skills in both personal and professional contexts. In the area of stress management, students adopted mindfulness-based coping approaches, used structured techniques such as breathing exercises and task segmentation, and increasingly sought social support while improving impulse control. Finally, improvements in general mood revealed a heightened sense of positivity and inner balance, with students recognizing that the goal is not to eliminate stress but to coexist with it constructively.

These findings emphasize that emotional intelligence can be systematically developed through structured, experiential learning. The study supports integrating stress management and emotional intelligence training as core, compulsory components of health sciences—especially nursing—curricula. Such training should go beyond theoretical instruction to include applied, behaviorally oriented activities aligned with Bar-On's model. Techniques such as emotion journaling, guided breathing, role-play, and reflective exercises should be actively employed to foster experiential learning.

To ensure sustainability, nursing programs should:

- Develop dedicated curricular modules on emotional intelligence and stress management based on the tested program.
 - Provide educator training to equip faculty with the competence to deliver emotionally intelligent instruction.
 - Create guides for clinical mentors to help them recognize and respond to students' emotional needs during placements.
 - Integrate these interventions early in the curriculum as preventive strategies against future professional burnout.
- While this study adopted a qualitative design, future research should employ quantitative and longitudinal methodologies to evaluate the model's effectiveness across diverse populations and to assess the long-term impact of emotional intelligence development on professional performance and well-being.

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