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Emotional Agility among Clinical Line Managers in the VUCA World

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Abstract

Purpose

Emotionally agile leadership is increasingly recognised as essential for effective leadership in today's volatile healthcare environments, where emotional complexity and rapid change prevail. However, little is known about pre-registration nurses' perceptions of these behaviours during clinical placements. This study examines Emotional Agility (EA) behaviours among Clinical Line Managers (CLMs) from the perspective of pre-registration nurses in the UK.

Design/methodology/approach

The study adopts a mixed-methods approach, combining quantitative survey data (N = 421) with a thematic analysis (N = 17) of open-ended and text-based questions.

Findings

Findings generally suggest that emotionally agile leadership—characterised by flexibility, emotional acceptance, and responsiveness—positively shapes pre-registration nurses' wellbeing and clinical experiences. Regression analysis revealed that perceptions of EA varied by demographic factors such as gender, age, program level, and department. Qualitative insights reinforced the significance of emotionally agile behaviours in cultivating value-driven and emotionally engaging learning environments within the higher education context. This study contributes to the field of healthcare leadership by exploring nursing students' perceptions of CLMs' leadership behaviours, emphasising their practical relevance in clinical education settings in higher education.

Originality

This study contributes to the field of healthcare leadership by providing empirical insights into pre-registration nurses' perceptions of CLMs' leadership behaviours during practice placements. It underscores the practical relevance of these behaviours in shaping students' professional development and offers valuable guidance for both academic and clinical educators in reflecting on how their leadership approaches influence the growth of future nurses.

Keywords: Emotional Agility, Clinical Line Managers, Nursing students, Healthcare, Higher education

Introduction

The healthcare sector increasingly operates under conditions characterised by volatility, uncertainty, complexity, and ambiguity (VUCA) (Bennis & Nanus, 1985; Cernega et al., 2024).

Originally conceptualised to explain geopolitical instability in the post-Cold War era, the VUCA framework has since gained prominence across various domains, including healthcare. These dynamics became particularly pronounced during the COVID-19 pandemic, which not only exacerbated existing systemic challenges but also introduced unprecedented disruptions to clinical operations and professional roles.

Within this rapidly shifting landscape, clinical line managers (CLMs) hold a pivotal position. Beyond their operational responsibilities in leading frontline teams, they also serve as educators and professional role models for pre-registration nurses, mediating the transition from academic instruction in higher education to clinical practice (Costa et al., 2025; Udod et al., 2024). As the pandemic intensified the complexity and emotional demands placed upon healthcare staff, the need for leadership grounded in emotional agility (EA) —defined as the capacity to respond to challenges with openness, curiosity, and values-based action (David, 2016)—became increasingly evident (Udod et al., 2024). Despite its relevance, EA remains an underexplored facet of clinical leadership, particularly in how it is perceived by those at the receiving end of its influence, nursing students in clinical education.

Globally, the pandemic compelled healthcare professionals to adapt rapidly to evolving clinical protocols, resource scarcities, and sustained psychological strain (Filip et al., 2022; Cernega et al., 2024). CLMs, in particular, were tasked with making high-stakes decisions while preserving team cohesion and morale under acute pressure. In this context of sustained turbulence, leadership approaches characterised by emotional intelligence, psychological flexibility, and value-aligned responsiveness have emerged as critical (Bauwens et al., 2022; BMA, 2023; Vindrola-Padros et al., 2020). These shifts underscore an urgent need to examine the implications of the VUCA environment for leadership, particularly focusing on how pre-registration nursing students perceive the emotionally agile behaviours of clinical line managers (CLMs) during clinical placements, especially regarding emotional support and learning facilitation within the context of higher education.

Emotional Agility

EA provides a behaviourally grounded framework that enables leaders to regulate emotions without suppression, remain aligned with core values, and make flexible decisions under pressure (David, 2016). For clarity, EA can be defined as the capacity to respond flexibly and in alignment with core values when faced with emotional challenges, rather than avoiding or suppressing emotions (David & Congleton, 2013). Emotionally agile leaders maintain balance, authenticity, and resilience by constructively engaging with difficult experiences—qualities especially critical in high-stress environments such as healthcare.

Importantly, EA is not an innate trait, but a skill developed through deliberate effort, continuous self-reflection, and intentional practice (Elmas, 2024). It involves becoming aware of one's thoughts, emotions, and experiences without labelling them, using these insights to guide purposeful actions instead of viewing emotions as obstacles (David, 2016).

Conceptually, EA aligns with broader agility-related constructs, such as:

- learning agility, defined as the capacity to quickly acquire and apply new knowledge and behaviours in dynamic conditions (Glassman & Withall, 2018);
- workforce agility, the behavioural flexibility to adapt to shifting roles, tasks, or environments (Storme et al., 2020; Paul et al., 2020);
- leadership agility, the ability to guide teams through uncertainty by fostering innovation and emotional insight (Hayward, 2021).

Among these, leadership agility is particularly relevant, encompassing shared responsibility, openness to innovation, proactivity, and EA itself (Joiner, 2019; Hayward, 2021; Setiawati, 2021; Ozdemir & Cetin, 2022). These dimensions illustrate the multifaceted nature of agile leadership, with EA serving as a key emotional behavioural capacity that enables leaders to respond effectively to complex and high-pressure conditions (Ozdemir, 2020). Nevertheless, despite its relevance, EA's role

in higher education and other high-stress industries is underrepresented in the literature, limiting understanding of how it supports skills development during clinical placements and leadership training.

A comparison with related emotional constructs offers greater conceptual clarity regarding the unique features of EA. Emotional intelligence (EI) and resilience have long been foundational in leadership research (Kerr et al., 2006; Tugade & Fredrickson, 2004), yet EA offers a complementary perspective, particularly in emotionally charged and ambiguous environments like healthcare. While EI focuses on emotional control and social regulation (Ciarrochi & Mayer, 2013), EA emphasises accepting difficult emotions and acting in line with core values under pressure, as demonstrated in Elmas's (2024) study conducted in another high-stress setting—educational institutions. Resilience involves coping with adversity, whereas EA adds conscious reflection and emotional flexibility (Tugade & Fredrickson, 2004; David & Congleton, 2013).

EA is related to emotional labour, which involves managing emotions to meet societal expectations in caregiving professions such as nursing (Delgado et al., 2017; Liu et al., 2004). In contrast, EA centres on internal acceptance and authenticity (David, 2016). Similarly, while emotion regulation involves modulating emotional responses, EA emphasises acceptance over control—especially in stressful, ambiguous conditions (Gross, 1998; David & Congleton, 2013). These conceptual differences, particularly EA's grounding in values-driven emotional flexibility, make it especially relevant in VUCA-driven healthcare settings where leaders must balance emotional strain with rapid operational demands.

In emotionally complex and hierarchically structured contexts such as clinical placements, pre-registration nurses often experience leadership not through formal definitions but through observed behaviours in real time. Their perceptions offer valuable insight into how EA manifests in practice and how it supports skills development under pressure (Levett-Jones et al., 2006; Eick, Williamson & Heath, 2012). Despite growing interest in EA within higher education—such as in pre-service teacher education (Elmas, 2024)—its role in clinical healthcare training remains insufficiently explored. While some studies have examined EA in educational settings (Ozdemir, 2020; Wilson, 2020), research focusing on its behavioural manifestations during clinical placements, particularly from the perspective of nursing students, is scarce.

Filling this void in the literature, the present study investigates how emotional agility manifests behaviourally in clinical leadership, as perceived by pre-registration nurses during their training. The following research questions guide the inquiry:

- RQ1: Do pre-registration nurses, during their clinical placements, perceive their CLMs as demonstrating a high level of EA?
 - RQ2: What factors and contextual characteristics of both pre-registration nurses and their clinical leaders predict the perceived EA behaviours of CLMs?
- RQ1 and 2 are addressed through the Phase 1 findings.
- RQ3: How do pre-registration nurses perceive the flexibility and proactivity of CLMs addressing challenges?
 - RQ4: How do pre-registration nurses perceive the CLMs' emotional acceptance and self-improvement skills on their leadership style?
 - RQ5: How do pre-registration nurses perceive the impact of CLMs' authenticity and sincerity on their responsiveness?

RQ3, 4, and 5 are addressed through the Phase 2 findings.

By addressing these questions, this study aims to illuminate how emotional agility (EA) manifests behaviourally in clinical leadership. Positioned within the context of higher education-based clinical

placements, the research highlights the significance of emotional competencies in fostering both individual skill development and team effectiveness—an area increasingly prioritised within curricula that integrate work-based learning outcomes.

Understanding how EA behaviours are perceived and enacted holds significant practical implications. It can inform leadership development curricula in healthcare education and guide organisational strategies aimed at enhancing emotional resilience and adaptability in clinical settings. These insights are particularly valuable as EA extends beyond internal emotional awareness to encompass observable behaviours, such as supporting teams in emotionally charged situations (David, 2016; Wilson, 2020). For clinical leaders, this capacity represents a critical asset in maintaining both emotional support and operational focus under pressure.

Methodology

The study employed an explanatory sequential mixed-methods design, where quantitative data were initially collected and analysed to identify patterns and relationships, followed by qualitative data collection to deepen understanding of these findings (Creswell, 2011). This approach allows for integration of generalizable results with contextual insights, suitable for exploring the complex and situational nature of EA in leadership.

Ethical approval was granted by the University of Chester's ethics committee before commencing both phases of this study.

Phase One - Quantitative Strand

In phase one (April–December 2024), quantitative data were collected from pre-registration nurses using the seven-item EA subscale of the Agile Leadership Scale (Ozdemir & Cetin, 2022), demonstrating high reliability (Cronbach's $\alpha = 0.92$). Invitations with survey links were distributed via course tutors and social media. Participants provided informed consent before accessing the anonymous questionnaire. Data were analysed in R; Confirmatory Factor Analysis (CFA) using the "lavaan" package confirmed the EA construct. Multiple regression and interaction models explored the effects of gender, department type, program level, and age on perceptions of emotionally agile leadership, reflecting complex demographic influences (Alshammari et al., 2020; Paris et al., 2009).

Phase Two: Qualitative Strand

In phase two, to explore how pre-registration nurses perceive the role of EA in clinical leadership, open-ended, text-based questionnaires were used, structured around key topics identified in the EA traits literature. This method offered practical advantages for a hard-to-reach population, such as asynchronous participation and reduced interviewer bias, enabling more reflective and elaborated responses (Wilkerson et al., 2014; Braun et al., 2021). Given the textual data, an inductive thematic analysis (Braun & Clarke, 2006) was applied, following their six-phase framework, which included data familiarisation, coding, theme development, and refinement. Data collection continued until saturation was reached, meaning no new themes emerged. Intercoder reliability, ensuring consistent coding between researchers, was established through independent coding. Peer debriefing, involving discussions with colleagues, enhanced reflexivity and trustworthiness. A thick descriptive account, including verbatim excerpts, further enhanced the study's transparency and credibility.

Sampling

For the quantitative strand, disproportionate stratified sampling was employed as it enabled efficient participant recruitment across multiple regions while balancing the need for diversity (Barron et al., 2015). Although regional differences were not examined in the final analysis, this sampling approach facilitated the inclusion of participants from a wide range of geographical areas. The sample consisted of pre-registration nurses undertaking clinical placements who were 18 years or older, English-speaking, and enrolled in universities in the UK in 2024. This method was specifically selected to ensure adequate representation from all 12 distinct strata of the UK and proved particularly advantageous given the unequal distribution of participants across regions, a result of the convenience sampling technique utilised through social media. After collecting data from n=453 participants, 32 responses were excluded due to missing or inconsistent data, leaving 421 valid responses for analysis. Table One summarises participant demographics.

Demographic Category	Group/Category	Frequency	Percentage (%)
Student's Gender	Female	320	76.01
	Male	101	23.99
Student's Age Group	32 and below	368	87.41
	33 and above	53	12.59
Department	Adult Nursing	143	33.97
	Children's Nursing	112	26.6
	Learning Disability Nursing	39	9.26
	Mental Health Nursing	114	27.08
	Other Departments	13	3.09
Programme Level	Undergraduate Programs	231	54.87
	Postgraduate Programs	165	39.19
	Short Courses	25	5.94
Ethnicity	White	388	92.16
	Black	18	4.28
	Mixed	9	2.14
	Asian	4	0.95
	Prefer not to disclose	2	0.48
UK Region	East Midlands	33	7.84
	East of England	72	17.1
	Greater London	79	18.76
	North East	43	10.21
	North West	66	15.68
	Northern Ireland	13	3.09
	Scotland	36	8.55
	South East	14	3.32
	South West	13	3.09
	Wales	10	2.38
	West Midlands	16	3.8
	Yorkshire& the Humber	26	6.18
Manager's Gender	Female	288	68.41
	Male	133	31.59
Manager's Age Group	32 and below	123	29.22
	33 and above	298	70.78

Table 1: Demographic Characteristics of Participants (N = 421)

For the qualitative strand, purposive chain sampling was employed, beginning with eligible pre-registration nurses enrolled in UK universities in 2024 (aged 18+, English-speaking, with clinical placement experience) who referred peers meeting the same criteria (Patton, 2002). Their clinical placements exposed them to emotionally demanding, unpredictable environments, making them suitable for exploring emotional agility in VUCA contexts (Levett-Jones et al., 2006; Eick et al., 2012). Initial invitations via course tutors recruited five participants, with peer referrals increasing the

sample to 17. Participant demographics are detailed in Table Two. Pseudonyms were used to ensure confidentiality.

Participant's Code	Gender	Program	Age Group	Race/Ethnicity
NS1	M	BSc Nursing (Adult)	18-24 years	Black
NS2	M	BSc Nursing (Adult)	18-24 years	Black
NS3	F	BSc Nursing (Adult)	25-32 years	Black American
NS4	M	BSc Nursing (Adult)	18-24 years	White
NS5	F	BSc Nursing (Adult)	41+ years	White
NS6	F	BSc Nursing (Adult)	25-32 years	White
NS7	F	Doctorate in Clinical Practice	25-32 years	Caucasian/White
NS8	M	BSc Nursing (Mental Health)	25-32 years	Black American
NS9	M	BSc Nursing (Mental Health)	18-24 years	Black British
NS10	M	MSc Rehabilitation Nursing	25-32 years	African American
NS11	F	BSc Nursing (Adult)	41+ years	White British
NS12	F	BSc Nursing (Adult)	18-24 years	White British
NS13	M	BSc Nursing (Adult)	41+ years	Black African
NS14	M	BSc Nursing (Mental Health)	41+ years	African
NS15	M	BSc Nursing (Mental Health)	41+ years	Rather not say
NS16	F	BSc Nursing (Mental Health)	33-40 years	White British
NS17	M	BSc Nursing (Mental Health)	41+ years	Black African

Table 2: Demographic Characteristics of Participants (N=17)

Findings and Discussion

With a sample size of $n = 421$, the Chi-Square (χ^2) test yielded a significant p-value of 0.001, which may indicate a minor model misfit due to the large sample size. Therefore, it is crucial to consider other fit indices: $\chi^2/df = 2.69 (\leq 3)$, CFI (Comparative Fit Index) = 0.966 (≥ 0.95), SRMR (Standardised Root Mean Residual) = 0.036 (≤ 0.08), TLI (Tucker-Lewis Index) = 0.949 (≥ 0.90), and RMSEA (Root Mean Square Error of Approximation) = 0.063 (≤ 0.08).

Additionally, factor loadings for items Q1-Q7 range from 0.523 to 0.666 (≥ 0.5), indicating strong indicator reliability, and the Composite Reliability (CR) is 0.874 (≥ 0.7), further supporting the model's reliability. These indices suggest that the model is not only well-fitting but also demonstrates convergent validity with well-fitting latent variables. To further assess the reliability of the measures, Cronbach's α was calculated for each item, and the total score of 0.80 (≥ 0.7) indicates good internal consistency. Overall, the results indicate that the model exhibits excellent fit, reliability, and validity (Wang & Wang, 2012).

Descriptive statistics, including the mean and standard deviation (SD), are presented to illustrate pre-registration nurses' perceptions of their leaders' EA. These values reflect the central tendency and variability of responses and are summarised in Table three.

Questions	Mean	SD
Q1: CLM guides his/her employees against future uncertainties	3.926	1.038
Q2: CLM supports each employee to express his/her feelings and thoughts independently	4.019	0.892
Q3: CLM provides flexibility in working programmes, if necessary, in case of a failure	3.986	0.949

Q4: CLM shows sincere and honest behaviour towards his/her team	4.097	0.914
Q5: CLM has the ability to accept the current situation where struggling is unnecessary	3.900	0.875
Q6: CLM can speak frankly if something goes wrong	3.998	0.955
Q7: CLM may direct his/her team correctly in the tempered situations resulted by contradictions	4.138	0.867
Scale Average	4.009	0.627

Table 3: Mean and SD leaders' EA domains scores of pre-registration nurses

The results indicate a high level of agreement among participants regarding the CLMs' EA qualities. The mean values, which range from 3.900 to 4.138, show slight variation but still reflect strong overall positive perceptions. The average standard deviation of 0.627 suggests minimal variability in the responses, indicating a high degree of consensus among participants' perceptions. This consistency implies that the CLMs' emotionally agile leadership behaviours are broadly appreciated and similarly viewed by the respondents. Specifically, items related to leaders' ability to manage contradictions (Q7), demonstrate sincerity (Q4), and encourage independent expression (Q2) received relatively higher mean scores. In contrast, accepting the current situation when struggling is unnecessary (Q5) and guiding employees through uncertainties (Q1) received lower scores, indicating that CLMs may benefit from further development in managing uncertainty and guiding pre-registration nurses through challenges.

Given the large sample size ($n = 421$) and acceptable skewness (-0.229) and kurtosis (-0.822) values (within ± 2 ; Gravetter & Wallnau, 2012), the assumption of normality was deemed satisfactory. Therefore, we proceeded with parametric analyses, which included both a basic multiple regression model and an extended interaction model incorporating all possible two-way interactions. The full model specifications are provided as supplementary data.

Variable	β	SE	t-Value	p-Value
Intercept	4.84447	0.82310	5.886	8.82e-09 ***
Manager's Age (33 and over)	1.56436	0.59580	2.626	0.00900 **
CN Department	-2.16585	0.77109	-2.809	0.00523 **
MHN Department	-1.28006	0.57216	-2.237	0.02586 *
Gender(ref:Male) X Manager's Age(ref:33 and over)	0.55261	0.20904	2.644	0.00855 **
Gender(ref:Male) X Undergraduate	0.77033	0.34777	2.215	0.02736 *
Gender(ref:Male) X Postgraduate	0.94693	0.35452	2.671	0.00789 **
Students'Age(ref:32 and below) X CN Department	0.99886	0.41030	2.434	0.01538 *

Leader's EA: Residual SE: 0.5814 on DF: 374, R-squared: 0.2339, F-statistic: 2.483, and p-value: 1.494e-06 ($P < 0.05^*$), CN: Children's Nursing, MHN: Mental Health Nursing

Table 4: Multiple and Multivariable Interaction Regression of Predictors of Leader's EA Subscale

As observed in Table Four, the regression model demonstrates a moderate fit, with a residual standard error of 0.5814 on 374 degrees of freedom. The R-squared value of 0.2339 indicates that approximately 23.39% of the variability in the leader's EA is accounted for by the model, suggesting acceptable power (between 0.10 and 0.50) in social sciences only when some of the variables are

statistically significant. The F-statistic of 2.483 and its associated p-value of 1.494e-06 ($p < 0.05$) indicate that the overall model is statistically significant (Ozili, 2023).

Furthermore, the results of the multiple regression analysis indicate that several predictors had significant effects on the leader's EA. Firstly, the predictor of the manager's age ($\beta = 1.56436$, $p = 0.009$) significantly impacted the perceived EA of leaders, with a positive relationship suggesting that older managers (aged 33 and over) are associated with a higher perceived EA in leaders. Specifically, our study emphasises that as individuals age, they tend to develop greater self-awareness, emotional acceptance, and enhanced leadership skills. Supporting this, Alshammari et al. (2020) found that both age and the experience of nurse leaders were positively correlated with EI, particularly its emphasis on self-awareness and improved leadership skills, which closely align with the principles of EA and are, in turn, linked to effective leadership. This finding highlights the importance of continued nurse education, as structured learning can strengthen EA and leadership skills. While age and experience naturally contribute to this development, formal training may accelerate and enhance these competencies, especially in complex care settings.

Regarding departments, the children's nursing ($\beta = -2.17$, $p = 0.005$) and mental health nursing ($\beta = -1.28$, $p = 0.025$) departments negatively influenced perceived leader EA. This may stem from the emotionally charged environments and inherent stress, which can hinder nurse leaders' ability to effectively utilise their emotional strength. Approximately 33% of the NHS workforce report work-related stress (Health Education England NHS, 2019). Mental health nurses face intense interpersonal engagement (Mann & Cowburn, 2005), while paediatric nurses require high patience due to the emotional impact of caring for children (Páll, Gorove, & Baji, 2021). In both areas, nurse leaders engage in emotional labour—managing their own emotions while supporting patients and families. Higher emotional labour correlates with increased stress and reduced capacity for emotion regulation, a key element of both EI and EA (Mann & Cowburn, 2005; Zhao, Li, & Shields, 2019). These findings underscore the need for targeted nurse training and higher education programs that specifically address emotional labour and stress regulation strategies, equipping nurse leaders—particularly those in high-stress departments such as mental health and children's nursing—with tools to maintain EA and resilience in practice.

Other departments, such as adult nursing and learning disability, showed no significant effect on perceived leader EA, possibly due to differing departmental demands. This suggests the need to explore additional predictors to better understand factors influencing leader EA. Additionally, student gender, age, programme level, and manager gender were not significant predictors in the multiple regression analysis. To capture potential combined effects, examining these variables through interaction regression models is essential, as this approach provides a more nuanced understanding of complex relationships (Doebler et al., 2023).

Four interaction terms were significant. Notably, although student gender alone was not predictive, the interaction between student gender and manager age ($\beta = 0.55$, $p = 0.008$) showed that female students paired with younger managers (≤ 32) and male students with older managers (≥ 33) rated leader EA more positively. This suggests that gender-age compatibility influences perceptions of leaders' emotional agility. These findings suggest that gender-age compatibility may influence students' evaluations of leadership EA, possibly reflecting socially constructed expectations tied to both age and gender roles.

Previous research suggests that women are more likely to embrace collaborative and forward-thinking leadership styles over traditional authoritative ones, typically without a specific age bias (Schlamp et al., 2019; Paris et al., 2009). However, our findings reveal that the interaction between

gender and age does influence how emotional agility in leadership is perceived. This adds a new dimension to the literature by showing how gendered perceptions—shaped in part by the leader’s age—affect students’ evaluations of their clinical leaders in higher education settings. In emotionally intensive clinical learning environments, these perceptions may influence students’ openness and responsiveness to leadership.

These results highlight the importance of emotionally agile leadership that transcends demographic expectations, fostering inclusive and effective learning relationships. Further research is needed to explore how these perceptual patterns manifest across different academic disciplines, institutional contexts, and cultural settings.

Furthermore, the results provide strong evidence that the interaction between students’ gender and educational level—specifically among undergraduates ($\beta = 0.77033$, $p = 0.02736$) and postgraduates ($\beta = 0.94693$, $p = 0.00789$)—predicts perceived leaders’ emotional ability (EA). In both groups, male students consistently rate leaders’ EA higher than female students do (the short course group, $n = 25$, was excluded due to its small size). Although gender alone did not have a significant direct effect on perceptions of leaders’ EA in the multiple regression, the interaction with education level revealed that male students perceive leaders’ EA more positively, with a stronger effect observed among postgraduates. This aligns with prior research suggesting that higher education is associated with more favourable evaluations of leadership styles (Keisu, Ohman, & Enberg, 2018). This may be because undergraduates tend to have a more basic, observational understanding of leadership, whereas postgraduates exhibit a more advanced, experiential perspective. Supporting this, Antonaros (2010) found that as students’ progress in higher education, gender influences leadership perceptions in increasingly nuanced ways. Additionally, a longitudinal study of a predominantly African American sample demonstrated that students attending higher education maintained stronger perceptions of leadership ability, underscoring higher education’s critical role in leadership development (Moore et al., 2019). These findings substantiate the view that advanced academic engagement significantly refines the emotional and cognitive frameworks through which leadership effectiveness is evaluated.

The interaction between students’ age and enrolment in the Children’s Nursing Department was also statistically significant ($\beta = 0.99886$, $p = 0.01538$), indicating that students under the age of 32 in this department tend to perceive their leaders as more emotionally agile than their peers in other departments or older age groups. This may be due to the distinctive emotional demands of paediatric care, combined with department-specific pedagogical approaches within higher education that shape students’ perceptions of leadership and emotional responsiveness.

While the quantitative findings revealed that several demographics significantly influence participants’ perceptions of leaders’ EA, they did not fully capture the nuanced ways in which they conceptualise and experience EA within clinical learning environments. Therefore, the qualitative strand complemented the statistical trends by providing a contextualised understanding of students’ lived experiences.

This study aimed to explore pre-registration nurses’ views of EA in CLMs, generating three main themes from 12 codes that encapsulate the core concepts of a leader’s EA. The following themes were identified through the thematic analysis.

1. Flexibility: moving from anticipation to proactivity (findings to RQ3) encompasses four codes:
 - Adjusting to unforeseen circumstances
 - Quick Problem-Solving Under Pressure

- Helping to Reduce Over-analysis and Exaggerated Concerns
 - Clear Communication
2. Showing up with emotional acceptance and growth (findings to RQ4) includes four codes:
 - Self-reflection
 - Learning from errors
 - Self-acceptance
 - Developing a growth mindset
 3. Acting with core values and responsiveness (findings to RQ5) comprises four codes:
 - Maintaining composure
 - Leadership calmness under pressure
 - Managing initial emotional reaction
 - Going with the flow.

Theme 1. Flexibility: Moving from anticipation to proactivity

The analysis's first theme highlights indicators that pre-registration nurses identify in leaders' capacity to shift from anticipating to managing challenges. This proactive focus aligns with EA and emphasises flexibility- adapting to dynamic environments, unforeseen obstacles, and changing healthcare goals.

Adjusting to Unforeseen Circumstances: This code emphasises the importance of adaptability when plans are disrupted, which is pivotal to proactivity. As NS 7 states, *"My manager remains highly adaptable. During a recent audit, they reassessed timelines and delegated tasks, ensuring clear priorities."* Similarly, NS 1 shared their manager's adaptability during staff shortages: *"When challenges arise like staff shortages, my manager adjusts plans to ensure continuity of care."*

Quick Problem-Solving Under Pressure: Students noted their managers' critical skills in quickly bridging the gap between identifying challenges and responding effectively in high-pressure situations. NS 1 explained, *"When critical medical equipment broke down during a busy shift, my manager sought alternative solutions without frustration, ensuring patient care continued smoothly."*

Reducing Over-analysis and Concerns: Managers help team members manage stress and avoid overthinking through emotional responsiveness. NS 7 recounted, *"During a stressful period, I was stuck in analysis paralysis. My manager listened and helped me identify critical issues, clarifying what needed immediate action."* NS 10 shared their experience in a chaotic shift: *"My manager reminded me of our team 's successes, shifting my focus from mistakes to positive outcomes."* This approach reduces over-analysis and balances immediate concerns with long-term perspectives.

Clear Communication: Proactive behaviour depends on effective communication, emphasising concise and transparent exchanges. NS 15 stated, *"A great communicator, my manager reassured us during the CQC visit, managing compliance needs and team morale effectively."* Instead of amplifying pressure, they encouraged open communication, preventing fear or confusion.

Theme 2: Showing up with emotional acceptance and growth

This theme emphasises embracing challenges with self-awareness, acceptance, and understanding emotions without judgment. Leaders face their emotions rather than ignore difficult thoughts, avoiding an overemphasis on positive thinking.

Self-reflection: This code encourages reflection on one's mindset during adversity by viewing discomfort and restructuring as opportunities for growth. NS4 noted, *"In our hospital, we faced a*

major organisational restructuring... my manager viewed it as an opportunity for improvement...

The manager promotes professional development by reflecting on team needs and guiding their team members' reflections. As NS6 said, *"He is so assuring, especially when I'm on the wrong..."* This demonstrates emotional awareness and encourages individuals to reflect without fear of judgment.

Learning from errors: This code illustrates how managers view mistakes as opportunities for learning. NS7 noted, *"...patient complaints... Instead of becoming frustrated, they treat each complaint as feedback..."* Their efforts to streamline check-in procedures exemplify adaptive responses to challenges, like NS14's example: *"My manager believes in herself... keep trying even though you will fail..."*.

Self-acceptance: By promoting self-compassion, the manager helps teams recognise that imperfection is part of learning. NS4 said, *"... my manager's ability to normalise difficulties... it's okay to experience stress or make mistakes..."* Shared struggles foster confidence in employees. NS6 added, *"...he sometimes expresses discomfort... but ensures things run smoothly."* The manager acknowledges real emotions, promoting self-acceptance.

Developing a growth mindset: This code emphasises viewing difficulties as learning opportunities. NS4 shared, *"... when I was overwhelmed... my manager shared their own experience... which made me feel less isolated..."* This openness normalises feelings of overwhelm, encouraging growth rather than signalling failure.

Theme 3: Acting with core values and responsiveness

This theme helps leaders navigate their emotions, enabling them to choose constructive actions aligned with their values rather than reacting to fleeting feelings.

Maintaining composure refers to staying calm and focused in the face of intense emotions, enabling managers to respond constructively. Examples include: (NS1) *"Their calm demeanour helped prevent any anxiety from spreading within the team."*, (NS3) *"My manager teaches us how to remain patient and effectively calm the situation..."*, (NS17) *"Always calm in any situation."*

Leadership calmness under pressure involves leaders remaining steady in high-stress situations, responding with transparent decision-making. NS9 noted: *"He demonstrates remarkable resilience when faced with a difficult patient situation. He remains calm and collected, providing support to both the patient and the team."* The leader offers calm and emotional strength, avoiding panic. NS10 added: *"During a period of high patient volume, my manager was asked to implement new guidelines at short notice. Despite the pressure, they did not get flustered."*

Managing initial emotional reactions focuses on self-control before responding in stressful situations. NS1 shared, *"When a senior staff member unexpectedly went on sick leave, my manager calmly reorganised shifts, ensuring coverage without panic."*

Going with the flow reflects moving forward smoothly and accepting changes. NS5 exemplified this by stating, *"I was getting stressed over my LSP being ignored; they allowed me to vent in a team meeting and solved the problem, collaborating with the disability team to meet my needs..."* This reflects adaptability and problem-solving without resistance. NS5 further explained, *"They shield staff and students from bad management policies and support students in voicing complaints..."* This approach minimises stress while offering support and autonomy, embodying the 'go with the flow' code.

Conclusion and Practical Implications

The findings of this study provided valuable insights into the multidimensional nature of EA behaviours exhibited by CLMs in volatile clinical settings. This study conceptualises EA as an externally observable construct, focusing on how leaders exhibit EA through visible traits, in line with David's (2016) model. Taken together, these research goals aimed to inform structural changes to the emotional support systems within healthcare leadership, addressing both acute stressful events and the ongoing challenges students face in clinical environments, as well as the mental toll of high-pressure situations.

Integrating the results, the relatively higher scores observed in Q2 (supporting independent expression), Q4 (demonstrating sincerity and honesty), and Q7 (guiding teams effectively in contradictory situations) align with all three themes derived from the qualitative analysis: 1) Flexibility: Moving from Anticipation to Proactivity, 2) Showing Up with Emotional Acceptance and Growth, and 3) Acting with Core Values and Responsiveness. These themes and corresponding codes further elaborate on the findings from the quantitative phase, as anticipated. Therefore, based on the qualitative results, we conclude that students perceive emotionally agile leaders as those who amplify an open and inclusive environment, enabling team members to express themselves authentically and learn naturally from real-world situations, which supports the quantitative findings of our study. Additionally, through the self-reflection and self-acceptance codes, it is possible to describe an environment that promotes the independent expression of thoughts, rather than suppressing emotions and adopting a stoic approach to leadership. This aligns with David's (2016) definition of EA as the capability to face thoughts and emotions with openness and show them in line with personal values. Consistent with this perspective, Wisse et al. (2024) also stated that displaying naturally felt emotions is a more effective strategy for leaders, even those with low empathy, to appear authentic and trustworthy, according to their empirical findings. This highlights the need to embed emotional agility (EA) training within higher education programs to cultivate authentic and emotionally competent future clinical leaders who can create inclusive learning environments that support both personal growth and professional effectiveness—particularly in the context of patient relationships. Additionally, integrating content on uncertainty management and reflective practice into nursing leadership curricula is recommended to further strengthen these competencies.

Additionally, in the thematic analysis findings, in VUCA environments, maintaining composure, managing initial emotional reactions, and demonstrating leadership calmness (codes under the third theme) are crucial for coping with uncertainties. In this context, the slightly lower scores observed in the quantitative research (such as "accepting the current situation if struggling is unnecessary" and "guiding employees through uncertainties") were explored in greater depth during the qualitative phase, providing a more comprehensive understanding of the underlying factors. We suggest that, in the face of uncertainties and challenging situations, rather than adopting a fixed mindset, leaders should use retrospective evaluations at the end of each iteration (Cordero, 2023) to help identify what is working well and what needs improvement. This approach aligns with emotionally agile behaviour and can lead to the development of proactive solutions to address uncertainties and challenges.

Other findings based on thematic analysis: learning from errors, developing a growth mindset, and clear communication for leaders, may enhance flexibility, which, in turn, encourages leaders to accept emotional experiences and learn from them. This involves confronting emotions rather than ignoring them and using them as opportunities for growth. While it is commonly posited that complex thoughts and emotions should be excluded in the workplace, particularly for leaders, David and Congleton (2013) argued that this goes against the biological structure of human beings, who

experience an internal flow of thoughts and feelings, such as doubts, fears, and even jealousy. We assert that ignoring these thoughts and emotions for leaders only serves to magnify them, ultimately leading to a waste of valuable cognitive resources that could be utilised more effectively.

Integrating the regression results with qualitative themes, this study found that demographic factors—particularly age, gender, students' departments, and educational level—significantly influence perceptions of leaders' emotional agility (EA). Notably, male students tend to perceive older leaders as more emotionally agile, potentially associating age with greater leadership experience. Conversely, female students favour younger leaders, attributing to them qualities such as principled action, proactivity, and flexibility, which emerged strongly in the qualitative data. These gender- and age-based perceptual differences highlight the necessity for diversified leadership development strategies and training programs that consider such demographic variables.

Moreover, the finding of lower perceived EA among nurse leaders working in high-stress departments underscores the critical need to integrate EA and resilience training into both higher education and ongoing professional development. Embedding EA training in nursing education, especially for those in emotionally demanding fields, can enhance leaders' capacity to manage stress and emotional challenges effectively. This approach supports personal resilience, improves organisational outcomes, and ultimately benefits public health.

Consequently, this research advocates for the incorporation of targeted emotional agility curricula and workshops within nursing programs, tailored to the varied perceptions shaped by age and gender. Healthcare organisations and policymakers should also prioritise creating supportive environments that foster emotionally agile leadership, thereby improving team dynamics and patient care. Given the global challenges faced by healthcare systems—such as pandemics and heightened emotional demands on leadership—these recommendations are applicable not only in the UK but across international healthcare settings confronting similar pressures.

This study does have several limitations. The primary limitation lies in the use of perception-based data, particularly regarding the demographic characteristics of CLMs—such as age and gender—which were reported by pre-registration nurses rather than the leaders themselves. As a result, we cannot fully guarantee the accuracy of the scores. Nevertheless, this is a standard limitation of all self-report measures, and the risk has been minimised as much as possible due to the large size of our sample ($N = 421 > 400$).

Another limitation of this study is the relatively acceptable R^2 value (0.2339), indicating that while the model explains a significant portion of the variance in the dependent variable, there remains unexplained variance that could be attributed to other factors not included in the current model. Future studies could improve the explanatory power of the model by incorporating additional independent variables—such as personality traits, cultural dimensions, or psychological factors—which may further elucidate the predictors of leaders' EA, particularly within diverse international settings. This can also lead to a deeper understanding of how complex interactions between leaders and members' demographic characteristics contribute to leaders' EA in healthcare settings.

For future research, we generally encourage further studies to replicate and extend our findings on leaders' EA, as it is a relatively new concept with limited existing literature. Expanding the exploration of this construct will deepen our understanding. It could also examine the relationship between leaders' EA and factors such as emotional labour, stress, coping skills and social hierarchy, as these elements may influence leadership effectiveness in various professional settings.

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