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Article

Rehearsing Legitimacy: Simulation-Based Pedagogies, Imposter Experiences and Academic Wellbeing in Early Career Academics

Itunu Hotonu, Kirstin Mulholland *, Sophie Cole, Mel Gibson, David Nichol and Christopher Counihan

School of Communities and Education, Northumbria University, Newcastle upon Tyne, United Kingdom

* Correspondence: kirstin.mulholland@northumbria.ac.uk

Abstract

This mixed methods study explores the effectiveness of a semester-long academic development programme in addressing Imposter Phenomenon among Early Career Academics. This intervention introduced low-technology simulations, allowing consideration of authentic challenges of practice. While imposter syndrome in academia is often institutionally driven, most coping strategies remain individualistic. This study responds to a paucity of research, an original contribution providing evidence from a pilot evaluation. Participants (n = 19) completed the Clance Imposter Phenomenon Scale pre- and post-intervention, with those reporting moderate to intense Imposterism (scores 41-80) interviewed (n = 10). Quantitative analysis revealed n = 3 reported less frequent imposter feelings, n = 2 reported more frequent imposter feelings, and n = 14 indicated no change. Qualitative analysis of interview data revealed that perceptions of simulation-based pedagogies were shaped by bi-directional intersections between three domains: understandings of simulation for professional learning; interactions/collaboration with peers; and personal identity/professional context. Findings indicated that sustained peer-interaction within psychologically safe and supportive environments was particularly valued, reducing isolation, enhancing professional belonging, and improving confidence, dimensions closely associated with academic wellbeing. However, contextual factors, including role ambiguity and unclear progression pathways sometimes intensified imposter feelings, highlighting structural conditions shaping professional identity and educator wellbeing.

Keywords: academic wellbeing; imposter phenomenon; simulation-based pedagogies; early career academics

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1. Introduction

The Imposter Phenomenon (IP), first identified by Clance and Imes (1978), describes a persistent sense of intellectual fraudulence experienced by individuals who are objectively competent, yet remain unable to internalise their achievements. Those experiencing IP attribute success to external factors such as luck or deception, rather than ability, and live with a fear of being exposed as inadequate (Clance, 1985; Bravata et al., 2019). While originally conceptualised as a psychological trait observed among high achieving women, later research has demonstrated that IP is widespread across numerous professional contexts, including healthcare, corporate leadership, and education (Edwards-Maddox, 2023; Freeman & Peisah, 2021; Guedes, 2023; Parkman, 2016).

Interest in IP has grown substantially within Higher Education (HE), where academic work continues to be shaped by performance metrics and competitive cultures (Breeze, 2018; Morris et al., 2022; Knights & Clarke, 2014). HE is characterised by continuous evaluation through publication outputs, grant awards, national student satisfaction scores, and promotion criteria, creating environments in which legitimacy is repeatedly tested, and professional identity and wellbeing remains complicated and fragile. Within such conditions feelings of self-doubt and perceived

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fraudulence are not unusual and are structurally produced (Breeze, 2018; Butler, 2022). Consequently, IP in HE is increasingly understood, not simply as an individual psychological deficit, but as a socially and institutionally embedded experience shaped by neoliberal university cultures.

Existing studies suggest that IP is prevalent across disciplines and career stages, affecting early career researchers (ECRs), established academics, and academic leaders (Crozier & Woolnough, 2020; Murcray, 2023; Sims & Cassidy, 2018). Experiences of IP are particularly acute among those whose identities differ from dominant constructions of the ideal academic, which remain implicitly grounded in gender, race, and class (Butler, 2022; Cristea & Babajide, 2022; Jarldorn & Gatwiri, 2022). Feelings of not belonging, marginalisation, and visibility are frequently reported as triggers, reinforcing the relationship between IP and broader questions of power, representation, and inclusion within HE (Fields & Cunningham-Williams, 2021; Lewis & Quinnell, 2022; Mallon, 2022).

Much of the existing literature adopts a psychological lens focused on individual traits, resilience, and coping strategies (Neureiter & Traut-Mattausch, 2016; Vergauwe et al., 2015), or collapses the experiences of students and staff into a single analytical category (Bravata et al., 2019; Yang et al., 2024). As a result, the institutional, cultural, and professional dynamics of academic work remain under-theorised. Moreover, interventions proposed in the literature predominantly suggest responsibility lies within individuals, encouraging self-management, confidence building, and even therapeutic strategies, whilst leaving largely unexamined the organisational and pedagogical conditions that maintain imposter experiences (Morris et al., 2022; Para et al., 2024).

This paper responds to these limitations by reframing IP as a pedagogical concern for HE as well as a structural one. It argues that IP should be understood as an outcome of academic cultures characterised by competition, precarious employment, audit management, and prescriptive ideals of excellence, and that these conditions demand interventions that address both emotional experience and professional learning. In doing so, the paper shifts attention from an individual deficit model towards the development of collective, dialogic, and reflective pedagogic practices capable of mitigating anxiety associated with Imposterism.

The paper's originality lies in its positioning of IP within the broader socio-cultural context of contemporary HE while examining a simulation-based pedagogical intervention designed to support academics in articulating, normalising, and critically reflecting upon their imposter experiences. This study conceptualises IP as a relational phenomenon emerging at the intersection of identity, institutional practices, and professional legitimacy. The simulation-based intervention is framed as a space for experiential learning in which participants can rehearse professional challenges, explore emotional responses, and reconstruct their academic identity through collaborative reflection.

The significance of this paper is made in three stages. First, IP has consequences for academic wellbeing, contributing to anxiety, burnout, and withdrawal from professional opportunities (Chakraverty, 2022; Hutchins & Rainbolt, 2016; Work, 2022). Second, its effects extend beyond individuals to shape institutional outcomes, including staff retention, research productivity, and the quality of teaching and learning (Parkman, 2016; Junious, 2024). Finally, by positioning simulation-based pedagogy, or pedagogies, (SBP) as a response to imposter anxiety, this study advances a novel approach that moves beyond individualised coping strategies towards a collective, educationally grounded and evidence-based intervention.

In this context the overarching aim of this study can be characterised as exploring the effectiveness of SBP in reducing IP among ECRs. This was considered through two research questions (RQ):

RQ1. What are the impacts of SBP on self-efficacy, confidence and job satisfaction?

RQ2. Which specific elements of SBP are perceived to be have greatest value in addressing feelings of Imposterism?

1.1. Triggers and Coping Mechanisms for Imposterism in HE

Imposterism in HE emerges from the interaction of individual experiences with broader institutional and sector-wide conditions. Central triggers include persistent non-belonging shaped

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by marginalisation and othering related to gender, race, class, age, sexuality, and educational background (Butler, 2022; Fields & Cunningham-Williams, 2021; Grassi, 2022; Lumsden, 2022; Morris et al., 2022; Work, 2022). These experiences are intensified through critical social comparison with idealised constructions of the successful academic (Crozier & Woolnough, 2020; Knights & Clarke, 2014) and through perceived deficits in knowledge or competence, particularly during transitional career stages or when entering academia from professional backgrounds (Chakraverty, 2022; Hutchins & Rainbolt, 2016; Mulholland et al., 2023; Murcray, 2023; Wilkinson, 2018).

These triggers manifest through emotional, physical, and behavioural dimensions, including anxiety, shame, exhaustion, overcompensation, and withdrawal from professional opportunities (Brems et al., 1994; Cristea & Babajide, 2022; Mallon, 2022; Sims & Cassidy, 2018; Wester et al., 2019; Work, 2022). Coping strategies identified in the literature remain largely individualised, emphasising self-talk, reflection, and resilience (Morris et al., 2022; Murcray, 2023), alongside relational supports such as mentoring and communities of practice (Carter et al., 2021; Burford et al., 2022; Mulholland et al., 2023). However, despite recognition of institutional triggers, there remains an absence of pedagogically grounded interventions that address Imposterism as a collective and structural concern (Para et al., 2024).

It is within this gap that this study is situated. By examining a simulated pedagogical intervention designed to surface, explore, and normalise imposter experiences, this paper contributes to emerging efforts to reconceptualise Imposterism as a shared professional challenge that can be addressed through reflective, collaborative, pedagogical practice.

1.2. Simulation-Based Pedagogy and Educator Development

SBP offers learners opportunities to engage with realistic representations of professional practice, allowing them to rehearse decision-making and develop key skills within supportive and risk-free environments (Kaufman & Ireland, 2019; Siddiqui et al., 2021; Walsh et al., 2017; Yu et al., 2021). These approaches vary considerably in their use of technology, spanning low- to high-technology formats.

Evidence indicates many educational benefits from SBP including improved learning outcomes (Levin & Flavian, 2022; Motola et al., 2013), enhanced application of knowledge to professional contexts (Siddiqui et al., 2021), and strengthened self-confidence and readiness for practice (Fischetti et al., 2022; Levin & Muchnik-Rozanov, 2023; McGarr, 2021).

Prior research also identifies several essential characteristics of effective SBP design, including curricular alignment (Badiee & Kaufman, 2015) and attention to specific professional practices relevant to learners' future roles to support professional identity formation (Dieker et al., 2014; Grossman et al., 2009). Engagement in simulation alone does not guarantee learning (Bradley & Kendall, 2014), reinforcing the importance of interaction (Badiee & Kaufman, 2015), structured feedback (Dufrene & Young, 2014), and opportunities for reflective critique of professional practice (Levin & Flavian, 2022; Motola et al., 2013).

Authenticity is consistently highlighted as a central condition for effective simulation (Dalgarno et al., 2016; Dotger et al., 2008), with learner engagement dependent on the capacity to suspend disbelief (Dieker et al., 2014). However, achieving this authenticity is not straightforward. Technologically complex simulations may be undermined by equipment limitations and performance issues (Al-Ghareeb & Cooper, 2016; Dalgarno et al., 2016; Dotger et al., 2008), while peer-to-peer role play can reduce perceived realism due to social familiarity among participants (Spencer et al., 2019). These findings suggest that authenticity is produced through a balance of technological, social, and pedagogical factors rather than any single design feature.

High-fidelity simulation environments may also increase cognitive demands, potentially reducing their instructional value (Fraser et al., 2015; Levin, Frei-Landau, Flavian, & Miller, 2023; Mulholland, Luke, et al., 2022; Sun et al., 2017). These demands occur both from the technological complexity of simulation systems (Sweller, 2019) and from the difficulty of scenario content (Sun et

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al., 2017). Therefore, simulation design must be carefully calibrated to participants' levels of experience to avoid unnecessary cognitive overload.

Finally, the financial costs associated with more immersive, high-tech simulations have been identified as barriers to broader adoption (Kaufman & Ireland, 2019). This highlights the importance of examining low-technology forms of SBP as potentially sustainable and effective alternatives for representing authentic professional practice. The viability of such approaches is therefore explored in this paper.

Beyond its implications for performance and career progression, Imposterism has increasingly been associated with broader dimensions of educator wellbeing. Research links imposter experiences (as flagged up above) with heightened anxiety, emotional exhaustion, burnout, and reduced psychological wellbeing across academic contexts (Bravata et al., 2019; Vergauwe et al., 2015; Chakraverty, 2022). Within HE, these experiences are intensified, as noted, by evaluative cultures and precarious career structures, contributing to chronic stress and professional isolation (Hutchins & Rainbolt, 2016; Work, 2022). If Imposterism is shaped by relational and structural conditions rather than individual deficit alone, then pedagogical responses may hold potential not only for professional learning but also for wellbeing support. SBP, particularly when embedded within sustained academic development programmes, then, creates structured spaces for rehearsal, dialogue, and collective reflection. In doing so, SBP may contribute indirectly to educator wellbeing, through fostering psychological safety, peer-validation, and professional belonging, rather than through individualised coping strategies alone.

2. Present Study

The present study was situated within a Postgraduate Certificate in Academic Practice (PGCAP) programme delivered at a UK post-1992 university. The PGCAP is a structured academic development programme typically undertaken by Early Career Academics (ECAs) within their first two years of appointment. This level 7 academic programme aligns with the Professional Standards Framework (PSF 2023) and aims to support the growth of pedagogical competencies, development of critical reflective practice, and formation and integration of academic identity.

The designed intervention took place across a module lasting an academic semester (consisting of 12 teaching weeks). Weekly sessions were delivered face-to-face and lasted approximately two hours. SBP were embedded throughout the programme as a recurring and integrated element rather than as a single discrete workshop. Each weekly session incorporated at least one structured, scenario-based simulation aligned with the session theme, including assessment and feedback, inclusive teaching, classroom management, handling challenging student interactions, and responding to evaluation or performance processes.

The simulation design drew on experiential learning principles and the use of approximations of practice. Scenarios were developed from commonly reported challenges encountered by ECAs. Simulations were conducted using structured role-play. Participants rotated roles (e.g., academic, student, observer), enabling exposure to multiple perspectives. Observers used structured prompts to guide feedback, and each simulation concluded with facilitated group debrief focusing on professional and pedagogic decision-making, alternative approaches and collaborative problem solving.

Participants completed the Clance Impostor Phenomenon Scale (CIPS) on induction to the programme and just prior to engagement with the simulation activities. The post-intervention CIPS was administered during the final scheduled session of the module.

3. Method

In this study we adopted a sequential-explanatory mixed method approach (Creswell & Plano Clark, 2018) to examine the effectiveness of SBP in addressing imposter feelings among ECAs. As academics with interests in finding solutions for reducing imposter feelings for this specific group,

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we were motivated by our shared pragmatic epistemic beliefs, prioritising methodological pluralism in meeting our research objectives (Morgan, 2007), rather than adhering to single paradigmatic assumptions that would ultimately limit our ability to capture complexities surrounding the imposter phenomenon. Our pragmatist stance provides methodological coherence that acknowledges IP as both ontologically "real" in its material consequences for ECAs' career trajectories, wellbeing and professional experiences, and epistemologically "constructed" through institutional procedures, norms, power relations and cultural representations of academic legitimacy. We framed our beliefs by positioning SBP as a site where individual experience and institutional conditions dialectically intersect.

Guided by these shared perspectives, we recognised that quantitative methods measure changes in IP intensity but cannot truly reveal the institutional practices, identity negotiations, or pedagogical mechanisms through which IP is experienced and potentially mitigated, while qualitative methods can explore these contextual dimensions but cannot systematically assess intervention effectiveness. A mixed methods design with three phases (quantitative, qualitative and integration) enabled careful examination of both individual outcomes and the collective, relational, and structural conditions that maintain or mitigate imposter experiences, responding to calls for interventions that address psychosocial, environmental, and educational dimensions of IP rather than focusing solely on individual coping strategies (Para et al., 2024).

4. Quantitative Phase

To address RQ1 concerning impacts on self-efficacy and confidence, the first phase involved quantitative data collected from the CIPS as an inverse indicator of these constructs. IP encompasses self-doubt, perceived fraudulence, and diminished self-assurance: psychological characteristics inversely related to professional confidence and self-efficacy (Clance, 1985; French et al., 2008). The CIPS specifically assesses feelings of intellectual fraudulence, fear of evaluation, and inability to internalise success—all central to self-efficacy beliefs in academic contexts (Holmes et al., 1993). In similar studies involving ECAs, CIPS has demonstrated good-excellent internal consistency (Taasoobshirazi et al., 2023; Mak et al., 2019) and provides an effective tool for identifying IP.

In our study, all ECAs enrolled in the PGCAP programme were invited to participate (N = 35). Nineteen ECAs (54.3%) provided informed consent and completed the CIPS before and after the simulation intervention. These 19 ECAs were distributed across three PGCAP programme cohorts: cohort 1 (n = 4), cohort 2 (n = 3), and cohort 3 (n = 12). They were distributed across faculties and schools, with most from the School of Healthcare and Nursing Sciences (n = 9). Others were the School of Communities and Education (n = 2), the School of Computer Science (n = 2) and the Newcastle Business School (n = 2). There was one participant each from the School of Geography and Natural Sciences, the School of Engineering, Physics and Mathematics, the School of Sport, Exercise and Rehabilitation, and a colleague from the Police in their role as police cadet educator. The remaining 16 ECAs (45.7%) either did not provide complete data due to non-completion at baseline (n = 2) or withdrawal before the post-intervention assessment (n = 14).

All three cohorts of ECAs (N = 19) completed the 20-item CIPS pre- and post-intervention by rating statements on a 5-point Likert-type scale, where 1 represented (not at all true) and 5 (very true). Items include statements such as *"I can give the impression that I'm more competent than I really am"* and *"At times, I feel my success has been due to some kind of luck,"* designed to assess feelings of intellectual fraudulence, fear of evaluation, and difficulty internalising success (Clance, 1985). Individual item ratings were then summed to create a total IP score ranging from 20 to 100, which was then categorised in accordance with Clance's (1985) scoring classifications, viz: few IP characteristics (20–40), moderate (41–60), frequent (61–80), and intense (81–100).

Quantitative analysis of the CIPS instrument was performed using the Statistical Package for the Social Sciences (SPSS, version 29). Data were cleaned and prepared for initial analyses to examine central tendency (median and mean) and dispersion (interquartile range and standard deviation) at pre- and post-intervention time points. CIPS categories represent ordinal-level data where categories

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can be ranked (e.g., intense IP represents greater imposter characteristics than few IP characteristics), but equal intervals between categories cannot be assumed (Jamieson, 2004). These initial analyses provided important insights into the distribution of IP characteristics within the ECA sample and helped establish the analytical approach.

Given the small sample size (n = 19 matched pairs), ordinal nature of CIPS categorical data and paired research design, the Wilcoxon Signed-Rank Test was selected as the appropriate statistical method for analysing median differences between pre- and post-intervention scores (Wilcoxon, 1945). This non-parametric test is specifically designed for ordinal paired data and does not require assumptions of normal distribution or equal intervals between categories (Hollander et al., 2014). As part of our analyses, we also ran a crosstabulation with the aim of examining individual movement patterns between CIPS categories pre- and post-intervention.

5. Qualitative Phase

Following the quantitative phase, those respondents who reported moderate to intense imposter feelings (41-80 score) were invited to attend a semi-structured interview with a member of the research team. This represented 10 ECAs (58.8%) from the original sample, with each interview lasting approximately 30 minutes, while the other 9 had ongoing work commitments that precluded their participation. To further bolster answers to RQs 1 and 2, ECAs were guided by a series of interview prompts designed to elicit responses, reflections and discussions about IP, and to explain their feelings pre- and post-intervention. The ECAs provided a series of viewpoints regarding their perceptions of the impact on their feelings of Imposterism pre- and post-intervention.

The 10 interviewees were from five schools: Healthcare and Nursing Sciences (n = 5), Computer Science (n = 2), Communities and Education (n = 1), Engineering, Physics and Mathematics (n = 1), and Newcastle Business School (n = 1). Their data were pseudonymised, with a location distribution of UK (n = 6) and International (n = 4) as shown in Table 1.

Table 1. Qualitative Interview Participants' Demographics.

Pseudonym	Code	Gender	UK / International	University Role	School
Grace	Participant 16	F	UK	Support	Communities and Education
Rahila	Participant 17	F	International	Academic	Engineering, Physics and Mathematics
James	Participant 23	M	UK	Academic	Healthcare and Nursing Sciences
Katarina	Participant 26	F	International	Academic	Healthcare and Nursing Sciences
Victoria	Participant 28	F	UK	Academic	Healthcare and Nursing Sciences
Ben	Participant 29	M	UK	Academic	Newcastle Business School
Emily	Participant 30	F	UK	Academic	Healthcare and Nursing Sciences
Lynn	Participant 31	F	UK	Academic	Healthcare and Nursing Sciences
Mei	Participant 32	F	International	Academic	Computer Science
Devi	Participant 34	F	International	Academic	Computer Science

Qualitative data were analysed using an inductive thematic analysis procedure (Thomas, 2006), which emphasises deriving themes and concepts directly from raw data through systematic coding processes rather than imposing pre-existing theoretical frameworks. Whilst the interview protocol was shaped by the quantitative findings from Phase 1, our analytical approach remained predominantly inductive, allowing themes to evolve organically from ECAs' accounts of their experiences with SBP activities designed to address the imposter phenomenon. This analytical approach was preferred because of the nature of capturing subjective perceptions from the ECAs, enabling exploration of diverse experiences.

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All interviews were transcribed verbatim and prepared in a common format to allow for familiarisation by two members of the research team. Initial coding involved close reading of transcripts, identifying segments of text relevant to research questions, and developing codes as concepts that followed a bottom-up strategy (Bingham & Witkowsky, 2022; Thomas, 2006). Following Thomas's (2006) general inductive approach, coding was guided by the research questions and Phase 1 patterns while remaining open to unexpected patterns and themes not anticipated in the interview protocol. Codes were systematically applied across all transcripts, with regular review to ensure consistency and refinement as understanding developed.

This study is located within the domain of practitioner-research in HE; we therefore recognise our interconnectedness to this research and the complex positionality incurred through our roles as both PGCAP facilitators and researchers. To mitigate potential implications of insider status, the research team adopted differentiated roles. Two members of the research team who had limited involvement in the PGCAP delivery led qualitative coding, while the four remaining members did not participate in this initial phase. This approach afforded a degree of introspective objectivity through introducing perspectives from researchers at the periphery of programme delivery, whilst also harnessing insider educator knowledge, enabling us to draw from rich analytic frameworks to identify patterns and ask questions informed by pedagogical expertise (Lytle & Cochran-Smith, 1992).

Initially, the two members worked independently to identify preliminary codes, scrutinising their relationship to the quantitative patterns observed in Phase 1 and to both research questions more broadly. Coding was conducted manually using Microsoft Word, using the highlighting function to mark relevant text segments and the comment feature used to attach codes and analytical memos to specific passages. Codes were shared at the group level, enabling collective discussion and refinement through a process of analytic triangulation (Given, 2008) to promote consistency and trustworthiness of analysis (Cypress, 2017). This enabled identification of any conflicting interpretations, particularly regarding whether emerging themes explained, confirmed, or contradicted quantitative findings, and for the two coders to engage in dialogue to establish shared meaning and improve precision (O'Connor & Joffe, 2020). Following refinement of the coding framework, data were read 'horizontally' across participants to facilitate comparisons within and across categories, allowing higher-order themes to emerge from the clustered codes (Thomas, 2006).

To enhance trustworthiness (Lincoln & Guba, 1985), credibility was addressed through prolonged engagement with data and thick description in reporting findings, dependability through maintaining an audit trail of analytical decisions and code development, and confirmability through grounding interpretations in participant quotations and maintaining reflexive journals throughout data collection and analysis (Ortlipp, 2008). The collaborative analytical process and regular team discussions further enhanced credibility through peer-examination of emerging interpretations.

6. Integration and Interpretation Phase

Whilst the integration of quantitative and qualitative data collected was an ongoing process, the formal synthesis and overall interpretations allowed us to provide transformative insights by systematically bringing everything together at the end of both data collection phases. We used Bazeley's (2024) conceptual integration model, which explains integration as dynamic interdependence between the methodological components found in each Phase of the study, where data are *connected*, *transactional*, *transformative* and develop *coherent* relationships.

Like many mixed method models, interdependence was achieved with data having continuous conversations between methods, allowing us to be more flexible in our approach to finding meaningful answers. For example, Phase 1 results generated questions that required further investigation in Phase 2, while the insights provided at Phase 2 enabled explanatory depth based on patterns uncovered in our quantitative findings during Phase 1. We achieved a level of *connection* by linking samples and insights from both Phases by purposively selecting n = 10 ECAs from the moderate-to-intense IP range in Phase 1 to ensure the likelihood of ECAs falling into this category

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would provide unique perspectives during the second Phase. Results from both Phases then adopted a process of *transfer/exchange* by mixing the data through joint display (Guetterman et al., 2015) where we organized quantitative results (pre/post CIPS) alongside qualitative themes to look for relationships between them.

From here we reconfigured our understanding of both datasets through a confirmation-contradiction explanatory approach (Tashakkori & Teddlie, 2008) to assess whether qualitative themes corroborated or diverged from the quantitative results. This proved to be an important step and provided a level of caution in understanding IP while generating meta-inferences about conditions and contexts that influenced outcomes. Finally, we established a level of *coherence* naturally through our shared pragmatic epistemological grounding and conceptualization of IP as being both a measurable and socially constructed phenomena. More practically, we demonstrated a level of *coherence* through regular discussions concerning the data to include checking patterns and accuracy of both datasets and ensuring multiple interpretations were shared and refined through common agreements before finalizing themes and interpretations.

7. Ethical Considerations

Ethical approval for this study was granted through the University's formal research ethics review process (Project No. 7802 Reference: Cole 2024-7802-8125) prior to data collection. The study adhered to institutional and sector guidelines governing research involving human participants. All participants received written information outlining the purpose of the research, the voluntary nature of participation, and their right to withdraw at any stage without consequence. Informed consent was obtained separately for the quantitative and qualitative phases.

Given the dual role of members of the research team as PGCAP facilitators and researchers, particular care was taken to mitigate potential power imbalances. Participation in the study was entirely voluntary and unrelated to programme assessment or progression. Data collection was conducted in a manner that ensured no individual responses were accessible to facilitators in ways that could influence academic evaluation. Qualitative interviews were led by team members with limited direct involvement in programme delivery to further reduce perceived coercion or role conflict.

Given the relatively small cohort size within a single institution, additional attention was paid to confidentiality and anonymity. Quantitative data were reported in aggregate form, and qualitative excerpts were pseudonymised with identifying details removed or modified where necessary to prevent deductive disclosure.

Because discussions involved potentially sensitive reflections on professional competence and belonging, psychological safety was prioritised throughout both simulation sessions and interviews. Participants were reminded that they could decline to answer questions or withdraw at any time. Institutional wellbeing support services were signposted where appropriate.

8. Results

8.1. Quantitative Findings

Table 1 presents descriptive statistics for CIPS scores at pre- and post-intervention. At baseline, the median CIPS score was 3.00 (IQR = 2.00–3.00; $M = 2.58$, $SD = 0.77$), indicating on average ECAs reported moderate imposter characteristics. Following the intervention, both median and mean scores remained unchanged at 3.00 (IQR = 2.00–3.00; $M = 2.58$, $SD = 0.61$). Despite this stability, further analysis revealed a shift in CIPS categories that changed the composition of IP feelings following the intervention. The proportion of ECAs classified as moderate increased from 42.1% (n = 8) to 63.2% (n = 12), while those classified as having frequent IP decreased from 42.1% (n = 8) to 31.6% (n = 6). Notably, the two ECAs who initially reported few IP characteristics at baseline both moved to the moderate category post-intervention, resulting in no participants reporting few IP characteristics

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following the intervention. This suggests some redistribution within the sample; however, the majority of ECAs (68.4%) showed no categorical change (see Table 2).

Table 1. Descriptive Statistics for Pre-Post CIPS Scores.

CIPS	N	M (SD)	Mdn	IQR	Range
Pre CIPS	19	2.58 (0.77)	3.00	2.00–3.00	1–4
Post CIPS	19	2.58 (0.61)	3.00	2.00–3.00	1–3

Scores: 1 = intense IP, 2 = frequent IP, 3 = moderate IP, 4 = few IP. Higher scores indicate less imposter syndrome.

Table 2 presents the specific movement patterns between CIPS categories. Among the ECAs that demonstrated categorical change, three ECAs (15.8%) showed improvement, moving to a higher category (indicating reduced imposter feelings), while three ECAs (15.8%) showed worsening, moving to a lower category. Notably, among the eight ECAs who reported frequent imposter characteristics at pre-intervention, three (37.5%) improved to moderate feelings post-intervention, while five (62.5%) remained at the frequent level. ECAs with moderate characteristics at pre-intervention (n = 8), seven (87.5%) did not change, while one (12.5%) moved to the frequent category. One ECA reported intense characteristics at baseline remained at that level post-intervention, and the two ECAs with few characteristics at baseline moved to the moderate category.

Table 2. Crosstabulation of CIPS Categories from Pre- to Post-Intervention.

CIPS Pre-intervention	CIPS Post-intervention			
	Intense IP	Frequent IP	Moderate IP	Total
Few IP	0 (0%)	0 (0%)	2 (100%)	2
Frequent IP	0 (0%)	5 (62.5%)	3 (37.5%)	8
Moderate IP	0 (0%)	1 (12.5%)	7 (87.5%)	8
Intense IP	1 (100%)	0 (0%)	0 (0%)	1
Total	1 (5.3%)	6 (31.6%)	12 (63.2%)	19

Values represent frequency counts with row percentages in parentheses.

To further understand observed patterns from the descriptives in Tables 1 and 2, a Wilcoxon Signed-Rank Test was run to determine if ECAs' IP feelings improved following the intervention. The test revealed no significant difference between pre- and post-intervention CIPS scores, $W = 10.5$, $p = 1.00$ This indicates that while some ECAs improved (n = 3, 15.8%) and others worsened (n = 3, 15.8%) the predominance of no change (68.4%) resulted in insufficient statistical evidence to conclude that the intervention period produced meaningful reductions in imposter feelings. RQ2 therefore guided the qualitative phase to identify which specific simulation elements ECAs perceived as most valuable in addressing their Imposterism, and to explain why the intervention benefited some participants but not others.

8.2. Qualitative Findings

Our analysis of the qualitative data indicates that ECAs' perceptions of both the impacts of SBP (RQ1), and of specific elements of this pedagogy which they perceive to have greatest value (RQ2), are influenced by the bi-directional intersection between:

1. their understanding of simulation as a vehicle for professional learning
2. their interactions and collaboration with peers, and
3. their own personal identity and professional context.

This has been represented in Figure 1 below.

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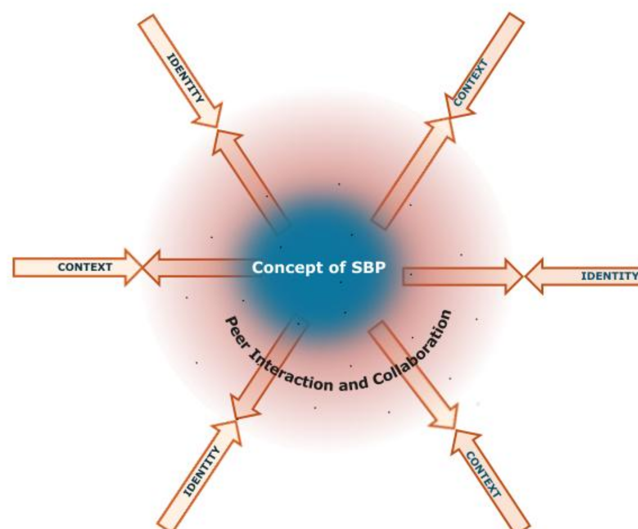

Figure 1. The following section discusses findings in relation to each of these domains below, drawing upon verbatim quotations from participants.

8.3. Perceptions and Conceptualisation of SBP: The Need for Clarity and Shared Understanding

When discussing their experiences of the SBP utilised throughout the PGCAP programme, responses from some ECAs indicated a lack of clarity around the nature of simulation in this context. This was particularly evident for international ECAs, as well as those from healthcare and nursing, whose accounts revealed differing underpinning conceptualisations of simulation depending on their backgrounds.

'I didn't really know what was meant by simulation […] it means many different things' (Katarina).

'I'm interested in the idea of what we call simulation and what we don't, because I think in my head […] or certainly before I did the PGCAP, I had quite a narrow concept of what simulation in education looks like […] I'd always thought of it in very rigid terms, like we get a clinical scenario with a patient' (James).

These accounts suggest insufficient signposting for ECAs during PGCAP sessions and highlight the importance of clear definitions to establish shared understanding around the range of formats and modalities which SBP can encompass.

'in the PGCAP, they won't refer to it as simulations. I only really came across that word when I was filling out the questionnaire at the end' (Ben).

However, despite varying perceptions, ECAs were generally positive about SBP, referencing the '*interactive*' and '*engaging*' (both Rahila) nature of these pedagogic approaches, as well as suggesting that these facilitated the transfer of theoretical knowledge into practice.

'that's helped me to think about pedagogical theories to embed into my practice. I'm a reflective practitioner anyway, but changing the kind of models I use to be more relevant to teaching as opposed to in clinical practice' (Grace).

Some ECAs reported that opportunities to discuss simulated scenarios increased feelings of preparedness for challenging classroom situations and interactions, resulting in improvements to self-confidence and perceived teaching quality.

'Some of the benefits of the experience I can draw from […] Like knowing what to do when you go in a classroom. If something [happens that] seems to be a bit of disturbance, try to use it positively in the class' (Ben).

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'I can feel […] quite a different result of some very efficient use of the pedagogy method approaches that I learned from PGCAP so I'm more confident on teaching' (Mei).

Interestingly, several participants reported their intention to incorporate SBP into their own teaching because of their perceptions of the success of this pedagogic model, suggesting that SBP influenced participants not just as learners, but also as educators.

'I've realised that engagement, interaction; there's a learning that can happen through that process. Whereas before I might think, "I'm just going to stand there, talk to them". They might not necessarily understand what I'm talking about, but if I can incorporate scenario-based examples, simulation, then that would make sense' (Rahila).

8.4. Peer-Interactions and Collaboration: Shared Experiences as a Counterpoint to Isolation

Many participant responses highlighted the importance of opportunities for peer-interaction and collaboration afforded by SBP. The benefits of these interactions were felt both within and beyond designated SBP sessions. For example, ECAs' responses indicate that repeated opportunities to share and discuss their experiences over a prolonged period were instrumental in promoting confidence and professional knowledge for educational practice.

'I was really quite comfortable within the group. I think it helped that we were a very honest group. So people were willing to share those feelings, those fears. That really helped. I think what also helped was the fact that we were together for a long time, so perhaps if you had asked me at the start of when I did the course compared to the end you might have got a different answer. But I think that repetition, with the same people and that kind of shared experience, that definitely does help' (Emily).

Some ECAs highlighted the importance of sharing experiences within a diverse cohort of peers, suggesting that the discussion of '*common experiences*' was helpful in '*validating*' challenges and helping participants feel less '*alone*' (all Emily).

'Being in a group of my peers who were all in fairly similar positions, new to university, had the same sort of feelings, it turned out. Even people that had more experience, like a PhD or doctorate, they were talking about feelings of similar things and I found that really relieving […] and that really spurred me on to have a bit more confidence in myself and what I was doing' (James).

The culture within which this discussion takes place was felt to be important, with ECAs particularly emphasising the need for a safe and supportive environment within which they felt comfortable to express their views and feelings without fear of judgment.

'I found the atmosphere for the PGCAP […] to be a very comfortable environment. A very respectful one in the sense that everyone has a voice and all voices are respected. One thing I found really useful is that culture, that there's no right or wrong answer. Whatever you bring to the table is useful […] the facilitators are very keen to hear your own view, your own explanation of the context. I would say that those are the environments that we need' (Rahila).

These peer-interactions can be seen to empower some ECAs, resulting in a sense of '*permission to do what I wanted to do to really make my teaching and develop my own style and not necessarily just do what other people do*' (Katarina).

8.5. Peer-Support, Scaffolding and Feedback

There was some indication that the diverse population of the PGCAP cohort, encompassing colleagues from a range of disciplines, schools and services, afforded opportunities to build supportive peer-networks beyond participants' normal working context. These were enhanced by the presence of a wider range of colleagues, including those from professional services, who were invited to deliver aspects of simulation content.

'This is a great chance for you to meet people you might never have met if you were stuck in your department. That's absolutely true and done. Some of the people in the class came in, acted in scenarios for us when we fill in, so that would be new people' (Grace).

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Similarly, simulation scenarios provided a vehicle within which ECAs could discuss common challenges of practice, affording opportunities to engage with a wide variety of views and perspectives. The simulated nature of these scenarios reduced the emotive nature of these discussions by removing the requirement for ECAs to share personal lived experiences and expose potential vulnerabilities.

> *'Just sort of looking at [peer's] credentials on paper might have been quite intimidating. But actually doing things in a more simulated environment levelled everything. And then when views are being put forward, you'll just say, oh, yeah, well actually they're not that different from me' (Victoria).*

This account demonstrates that, particularly during the early stages of this intervention, focusing discussions on simulated scenarios helped to address initial feelings of intimidation that ECAs may have experienced through unfavorable self-comparisons prompted by encountering peer achievements only on paper prior to their initial meeting.

> *'I feel that I have my own experience and it's just like other people's experience […] I think I've just stopped comparing myself so much with others. Yes, somebody else may be amazing, but if I was comparing myself with everybody around me, I would always feel inadequate'* (Katarina).

This supports existing literature (Mulholland et al., 2023) though suggesting that SBP, as an approach rooted in social-constructivist theory, can promote the development of mutually supportive communities of practice (CoP), when incorporated into a sustained programme of professional development. These horizontal support structures encouraged reciprocal learning relationships—or '*unofficial mentorship*' (Grace)—whereby ECAs sought and provided support among themselves simultaneously when seeking guidance and information without fear of consequence:

> *'It feels like we are belonging* […] *like if I'm entering my marks in the e-Vision I usually ask my PGCAP mate [rather than] asking my department mate, for other support also they are very much helpful. We have a friendly relationship* […] *And we are from different departments, so they won't pass anything about me to the other peers'* (Devi).

This scaffolding was bi-directional in nature, with ECAs assuming alternating roles in providing and receiving support within a safe environment. For some ECAs, recognition of the value of these peer-networks led to proactive and deliberate efforts to build such networks across faculties and services, helping to improve professional capital and connections:

> *'I tried to not always sit in the same place in the classroom […] I tried to mix that up a bit. It's also good to work with people that you don't know so well, don't have that level of comfort with, and that makes you think more carefully about how you're going to phrase things or discuss the issues you're talking about'* (James).

Similarly, by normalizing conversations and the giving and receiving of peer-support within the confines of the PGCAP programme, ECAs may also have been encouraged to establish supportive networks more informally beyond this forum:

> *'Informal coffee meetings […] we need more informal meetings and collaborations so that might be a mitigation strategy for this imposter syndrome, especially for the early career academics'* (Devi).

> *'I have actually had a few people in my department who have actually reached out […] asking about experiences'* (Emily).

It is important to note, however, that not all ECAs found the process of sharing concerns and potential vulnerabilities to be straightforward. For example, one international ECA expressed concerns resulting from language barriers and cultural differences which impacted upon their interactions during peer-discussions:

> *'Being afraid of justification because in the culture I come from […] people [are not] used to justify. I had the hesitation to open up my views in the beginning'* (Devi).

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This may suggest the need for additional support for those colleagues from diverse cultural contexts when seeking to promote peer-support and collaboration via pedagogic mechanisms such as SBP.

8.6. Identity and Context

Professional identity and personal development emerged as central to how ECAs experienced and navigated simulated scenarios and the subsequent impacts on their feelings of Imposterism. For example, the scenario-based simulations enabled ECAs to practice and reflect on their academic roles in safe settings. Participants' responses showed that simulation within PGCAP provided low-stakes contexts for 'trying on' their new academic identities as a permission-giving function:

> *'It gave me the permission to do what I wanted to do. Having seen somebody else do it, […] it gave me the permission to really make my teaching mine and develop my own style and not necessarily just do what other people do'* (Katarina).

However, conversely, for ECAs who perceived themselves to hold non-traditional academic roles, particularly those which blurred boundaries between academic and professional services, the inability to identify with the representations included within simulated scenarios themselves engendered imposter feelings.

> *'I'm employed in a very new role within my department, and it's classed as professional support. But I would actually question that in the work that we do […] actually I'm doing this work either the same or actually more than some of the people I was on the course with. But I'm seen in a different way'* (Grace).

For this ECA, considering simulated scenarios highlighted disparities between her perceptions and her formally designated role, as she became aware of her paradoxical situation as simultaneously both professional support staff and a non-traditional academic without a clear progression pathway.

Importantly, ECAs' responses echoed findings in the quantitative data through emphasizing that the simulation-based interventions considered here were insufficient to significantly reduce Impostorism. This may, in part, stem from the timing of the interventions within the academic year:

> *'I didn't have enough opportunity to put it into practice. I was only teaching in the last half of the semester. I've already set up the expectations and things, so it was quite difficult to make changes'* (Rahila).

One participant suggested the desirability of a structured '*crib sheet*' providing guidance regarding '*what you need to do [and] the times of year you need to do it*' (both Emily) to complement the existing interventions. Other participants questioned the timing of their participation in the PGCAP programme more broadly, highlighting ECAs' different needs across career stages which would be better addressed through directed delivery targeting specific skills and competencies for immediate application in practice.

> *'I would have liked, early on in the programme, a toolkit of quick, snappy things that I might want to try or explore in my practice. […] So, the format was more about finding your feet early on and exploring what pedagogy means for you. Developing your identity'* (James).

More difficult to address were ECAs' reported feelings of Imposterism incurred by wider facets of personal identity beyond the influence of institutional environment, including those relating to gender and cultural identity, caring responsibilities and neurodivergence.

> *'I am neurodiverse […] So I had a lot of comments all the way through the years […]And I think that kind of chips away at you over the years and makes you feel that you're maybe not good enough or you're not as good as other people because you are different. That's very hard to undo'* (Emily).

Similarly, some accounts indicated that, while helpful, this simulation-based intervention alone was insufficient to counteract deficiencies in the wider institutional culture and context which were perceived to intensify imposter feelings. For example, some ECAs described how inadequate onboarding processes impacted feelings of Imposterism:

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'certainly from my perspective it was, "You've got the job, now you are expected to do X,Y and Z, and you have to know how to do this". But nobody teaches you how to do this […] To tie it back to imposterism, I definitely think that's an influencing factor. You're dropped in the deep end without any kind of training' (Emily).

These challenges were exacerbated by the demanding and multi-faceted roles of ECAs in HE.

Combined, these accounts echo those triggers of Imposterism evident in the wider literature, underscoring the need for more comprehensive and sustained support for lasting impact.

'Everybody is very busy. Perhaps we need to think about dedicated people who could do this, who could spend that time with people. And you know, that might take the pressure off. It might make people feel less inferior and more included' (Emily).

9. Discussion

This study examined the impact of semester-long SBP intervention on imposter experiences among ECAs. The quantitative phase yielded a null finding at cohort level; there was no statistically significant change in CIPS scores between pre- and post-intervention measures. While descriptive analyses indicated movement within categories for some participants, overall scores remained statistically stable. The qualitative phase provides important insight into how this quantitative stability can be interpreted in context.

9.1. Interpreting the Null Finding

The absence of a statistically significant reduction in imposter scores suggests that a single-semester pedagogical intervention may not be sufficient to produce measurable shifts in aggregate imposter characteristics. This non-significant difference should not be interpreted as simple intervention failure; rather, it highlights the complexity of Imposterism as a phenomenon that is shaped not only by individual cognition, but also by professional identity formation, institutional norms, and relational dynamics within HE (Breeze, 2018; Knights & Clarke, 2014; Work, 2022; Morris et al., 2022).

Imposter experiences are frequently described in the literature as embedded within ongoing processes of social comparison, evaluation, and legitimacy negotiation (Crozier & Woolnough, 2020; Knights & Clarke, 2014). In such contexts, IP may be relatively resistant to short-term change (Para et al., 2024), particularly where broader structural conditions remain constant. The null quantitative finding therefore underscores the importance of examining how participants experienced the intervention, rather than relying solely on score change as an indicator of impact.

Importantly, movement patterns within the sample indicate a redistribution effect. Some ECAs reported reduced imposter characteristics whilst others reported increased imposter feelings. This divergence suggests that simulation-based engagement may interact with individual positioning and contextual factors in different ways.

9.2. Simulation as a Relational and Reflective Space

Our qualitative findings indicate that SBP was experienced primarily as relational and offering dialogic spaces (Mulholland et al., 2023) rather than as a direct confidence building tool. Participants consistently emphasised the value of:

- Sustained interaction with peers across the semester
- Opportunities to articulate uncertainty without judgement
- Recognition of shared professional challenges
- Reduction of isolation through collective reflection

In this respect, SBP functioned less as a mechanism for immediate reduction of imposter intensity and more as a structured environment for identity negotiation and meaning-making. For several ECAs, recognising that peers experienced similar doubts contributed to a reframing of their

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own feelings. This process did not necessarily eliminate imposter characteristics but appeared to normalise them.

These findings align with scholarship suggesting that peer-communities and communities of practice can buffer against professional isolation. In this study, the longitudinal design of the PGCAP programme, rather than isolated simulation events, appears central to this effect. Repeated interaction with the same cohort over time contributed to psychological safety and cumulative trust (Edmondson, 1999; Edmondson et al., 2016).

9.3. Heightened Awareness and Divergent Outcomes

The presence of both improvement and worsening in imposter categories suggests that SBP may have heightened professional awareness for some participants. Engaging with realistic simulation scenarios, observing their peers and reflecting critically on practice may increase sensitivity to perceived performance standards. Transformative learning theory suggests that critical reflection can generate temporary disorientation as previously held assumptions about competence and role are unsettled before new understandings are integrated (Mezirow, 1991).

For some ECAs, this heightened awareness may initially intensify self-scrutiny rather than alleviate it, and in such cases, responses are consistent with contemporary conceptualisations of professional identity formation (PIF) as a dynamic and socially situated learning trajectory rather than a linear progression towards confidence (Pach et al., 2025). Scoping evidence across HE contexts indicates that identity development frequently involves periods of uncertainty, role ambiguity and destabilization, particularly when learners move from peripheral participation towards more central professional engagement. From this perspective, increased reflection and exposure to authentic professional scenarios may initially heighten sensitivity to standards and expectations before contributing to longer-term consolidation of professional identity. In this sense, SBP may function as a site of identity negotiation, where provisional professional selves are explored, tested, and revised (Ibarra, 1999).

In addition, professional identity and institutional positioning emerged as important mediating factors. Participants in hybrid or non-traditional roles described tensions between their formal designation and perceived responsibilities. Such tensions align with scholarship on "third space" professionals in HE, which identifies hybrid positioning, blurred boundaries and contested legitimacy as structural features of these roles (Whitchurch, 2008; Whitchurch, 2013). For these individuals, simulation scenarios occasionally surfaced ambiguities in role legitimacy, reinforcing rather than reducing imposter feelings. The association between institutional invisibility and imposter experiences has also been noted in discussions of third space identity, where professional credibility is often constructed individually rather than institutionally (Akerman, 2020). Similarly, colleagues navigating linguistic, cultural, or neurodivergent experiences described additional layers influencing how they interpreted peer-interaction and feedback.

These findings reinforce the understanding of Imposterism as context-sensitive and relational (Lewis & Quinnell, 2022; Butler, 2022; Morris et al., 2022). SBP may then provide opportunities for rehearsal and reflection, but their impact appears moderated by institutional clarity, probation or progression criteria and onboarding processes.

9.4. Implications for Intervention Design

Taken together, the quantitative stability and qualitative insights suggest that SBP may be most appropriately conceptualised as useful as supportive relational interventions rather than direct corrective mechanisms for Imposterism. From a wellbeing perspective, these findings suggest that SBP may also operate as indirect supports for educator mental health given that imposter experiences, as noted, have been associated with anxiety, emotional exhaustion, and reduced psychological wellbeing among academics (Bravata et al., 2019; Vergauwe et al., 2015; Chakraverty, 2022).

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Although the intervention did not produce statistically significant reductions in CIPS scores at cohort level, ECAs described reduced isolation, increased psychological safety, and validation through peer-dialogue. These relational dynamics align with broader understandings of academic wellbeing in HE, where belonging, collegial support, and professional legitimacy are recognised as protective factors against stress and burnout. In this sense, SBP may contribute to educator wellbeing indirectly by strengthening relational integration and professional identity, rather than by immediately eliminating Imposterism.

Relationally oriented approaches within academic development have been shown to foster professional dialogue, shared meaning-making and peer-legitimacy through sustained participation in communities of practice (Wenger, 1998; Cox, 2004). From this perspective, simulation may function less as a confidence-building tool and more as a structured relational space in which uncertainty can be articulated and professional identity rehearsed collaboratively.

Within HE, peer-mentoring and faculty learning communities have similarly been associated with reduced isolation and enhanced professional integration among early career staff (Huston and Weaver, 2008; van Lankveld et al., 2017). The present findings align with this body of work, suggesting that the value of SBP lies in their capacity to facilitate collective articulation of uncertainty, rehearsal of professional judgement in low-stakes contexts, problems shared and solved, decisions tried and tested, with opportunity for the development of cross-disciplinary peer-networks. However, the null finding at cohort level indicates that such pedagogical strategies alone may be insufficient to produce measurable reductions in imposter characteristics without concurrent institutional support structures. Recent scholarship has increasingly framed Imposterism not solely as an individual cognitive distortion, but as shaped by evaluative cultures, performance metrics and structural expectations within HE (Breeze, 2018; Para et al., 2024). From this standpoint, interventions located exclusively at the pedagogical level may mitigate relational isolation but cannot fully address institutional ambiguity around progression, probation, recognition and legitimacy.

Future interventions may benefit from integration with structured mentoring, clearer onboarding frameworks, and explicit discussion of role progression. Mentoring in HE has been associated with increased professional confidence, role clarity and reduced isolation among ECAs (Eby et al., 2013; Sargent and Rienties, 2022). Similarly, research on academic onboarding and transition highlights the importance of transparent expectations, social integration and institutional sense-making during early career stages (Bauer and Erdogan, 2011; van Maanen and Schein, 1979).

Given that imposter experiences are often intensified during periods of transition and evaluation, embedding SBP within broader mentoring and induction structures may provide a more coherent developmental ecology. Rather than positioning SBP as a standalone corrective mechanism, a multi-level approach that integrates relational, developmental and organisational supports may offer a more sustainable response to Imposterism within contemporary HE contexts.

10. Limitations

Several limitations should be considered when interpreting these findings. First, the relatively small sample of matched pre- and post-intervention responses (n = 19) limited statistical power and reduced sensitivity to detect small or moderate effects. Although the Wilcoxon Signed-Rank Test was appropriate for the ordinal and paired design, subtle changes may not have been captured. Second, the study was conducted within a single institutional context. While participants represented multiple disciplines and professional and academic teaching-based roles, findings may not be directly transferable to institutions with different cultures, onboarding structures, or development frameworks.

Third, the intervention was embedded within a broader academic development programme rather than implemented as a standalone experimental condition. Although this reflects authentic educational practice, it limits attribution of outcomes exclusively to simulation-based components. The absence of a control or comparison group further constrains causal inference. Finally, the CIPS measures perceived imposter characteristics at discrete time points and does not directly capture

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structural or organizational influences identified qualitatively. In addition, the semester-long duration may have been insufficient to observe sustained shifts in professional self-perception. Longer-term follow-up would be required to determine whether relational and reflective changes translate into measurable reductions over time.

Despite these limitations, the present study makes several original contributions. It is among the first to empirically examine the effects of a longitudinal, simulation-based pedagogical intervention specifically designed to address ECAs' imposter experiences. Rather than evaluating a brief workshop or individual coping strategy, this study embedded simulation within an authentic academic development programme, allowing examination of how pedagogical design interacts with professional identity formation over time. The identification of a redistribution effect, where some participants improved, others reported heightened awareness, and many remained stable, extends existing literature by demonstrating that Imposterism may respond dynamically to relational and contextual processes rather than uniformly to intervention exposure. By integrating null quantitative findings with explanatory qualitative data, this study contributes to a more nuanced understanding of how pedagogical interventions intersect with institutional conditions in shaping imposter experiences.

11. Conclusions

This study examined the use of low-technology simulation-based pedagogies embedded within a structured academic development programme as a response to imposter experiences among ECAs. The quantitative phase yielded a null finding at cohort level, with no statistically significant reduction in CIPS scores following the semester-long intervention. However, qualitative findings revealed important relational and contextual dynamics that help explain this statistical stability.

SBP activities were experienced as structured spaces for peer-dialogue, rehearsal of practice and decision-making, and exploration of professional identity. ECAs valued sustained interaction, psychological safety, and the opportunity to normalise shared challenges. At the same time, the intervention surfaced tensions related to role ambiguity, institutional expectations, and broader structural conditions that shape imposter experiences. Taken together, the findings suggest that SBP activities may function less as direct corrective mechanisms for Imposterism and more as relational supports within complex professional ecosystems.

The present study therefore contributes to emerging scholarship that repositions Imposterism within HE as a relational and structurally mediated phenomenon rather than a purely individual psychological deficit. By identifying a redistribution effect and demonstrating how simulation-based pedagogies operate through identity negotiation and peer-legitimation rather than immediate symptom reduction, this research offers a more nuanced account of how educational interventions interact with institutional conditions.

While such approaches can mitigate isolation and facilitate identity reflection, they may also contribute to educator wellbeing by strengthening psychological safety, peer-belonging, and professional legitimacy. However, measurable reductions in imposter characteristics are likely to depend on wider institutional clarity, onboarding processes, and progression frameworks. Future research should therefore examine longer-term, multi-level interventions that combine pedagogical, relational, and organisational strategies to more fully address the persistence of impostor experiences in academic contexts.

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