International Journal of Nursing Studies 153 (2024) 104732

Contents lists available at ScienceDirect

International Journal of Nursing Studies

journal homepage: www.elsevier.com/locate/ns

The impact of prior care experience on nursing students' compassionate values and behaviours: A mixed methods study

Sarah Elizabeth Field-Richards [a,*], Aimee Aubeeluck [a], Patrick Callaghan [b], Philip Keeley [c], Sarah Anne Redsell [a], Helen Spiby [a], Gemma Stacey [d], Joanne S. Lymn [a]

[a] School of Health Sciences, University of Nottingham, Nottingham, UK
[b] School of Applied Sciences, London South Bank University, London, UK
[c] School of Nursing and Midwifery, Keele University, Keele, UK
[d] Florence Nightingale Foundation, London, UK

ARTICLE INFO

Article history:
Received 2 October 2023
Received in revised form 13 February 2024
Accepted 20 February 2024
Available online xxxx

Keywords:
Analysis of variance
Compassion fatigue
Courage
Emotional intelligence
Empathy
Focus groups
Students, nursing
Surveys and questionnaires
Telephone
Universities

ABSTRACT

Background: Compassion is critical to the provision of high-quality healthcare and is foregrounded internationally as an issue of contemporary concern. Paid care experience prior to nurse training has been suggested as a potential means of improving compassion, which has been characterised by the values and behaviours of care, compassion, competence, communication, courage, and commitment. There is however a dearth of evidence to support the effectiveness of prior care experience as a means of improving compassion in nursing.
Objective: To explore the impact of paid prior care experience on the values and behaviours of pre-registration nursing students indicated as characterising compassionate care.
Design: Longitudinal mixed methods design employing a modified concurrent triangulation strategy, comprising two work packages. Work package 1 was qualitative, and work package 2 adopted a concurrent embedded strategy with a dominant quantitative component. Research is reported in accordance with the Good Reporting of a Mixed Methods Study framework.
Setting(s): Three United Kingdom universities.
Participants: Pre-registration nursing students attending one of three universities, and individuals who had previously participated in a Health Education England paid prior care experience pilot. Participant numbers at time point 1 were questionnaires n = 220, telephone interviews n = 10, and focus groups n = 8.
Methods: Work package 1 consisted of longitudinal semi-structured telephone interviews. Work package 2 comprised validated online questionnaires measuring emotional intelligence, compassion satisfaction and fatigue, resilience, psychological empowerment, and career commitment (as proxies of compassionate values and behaviours), and focus groups. Qualitative data were thematically analysed. Quantitative data were analysed via Analysis of Variance in SPSS v 26.
Results: Qualitative findings suggest that prior care experience has both positive and negative effects on students' compassionate values and behaviours, however positive effects do not extend to qualification. No statistically significant differences were found in any of the quantitative outcome measures between participants with and without paid prior care experience. A statistically significant increase in compassion fatigue was identified in both groups of participants post-qualification. Paid prior care experience did not prevent participants from experiencing reality shock on becoming a student or on qualification.
Conclusions: There is insufficient evidence of longitudinal beneficial impact to recommend paid prior care experience as an effective intervention to foster nursing students' compassionate values and behaviours. These findings do not support mandating a period of paid care experience as a prerequisite for entry into nurse education.
Registration: N/A.

Tweetable abstract

Insufficient evidence of longitudinal beneficial impact to recommend prior care experience as an effective intervention to foster nursing student compassion @PriorCareExp @Sarah_F_R

* Corresponding author at: School of Health Sciences, University of Nottingham, Queen's Medical Centre, Nottingham NG7 2HA, UK.
E-mail addresses: sarah.fieldrichards@nottingham.ac.uk (S.E. Field-Richards), p.keeley1@keele.ac.uk (P. Keeley), helen.spiby@nottingham.ac.uk (H. Spiby)
Social media: (@Sarah_F_R), (@PriorCareExp), (@aimee_aubeeluck), (@profmanpat), (@SarahRedsell), (@GemmaStacey10), (@JoanneLymn).

https://doi.org/10.1016/j.ijnurstu.2024.104732

What is already known

- Compassion is critical to the provision of high-quality healthcare and is foregrounded internationally as a contemporary concern.
- Paid prior care experience has been recommended as a means of improving compassion in nursing.
- There is a dearth of evidence to support the appropriateness and effectiveness of prior care experience as a means of improving compassion in nursing.

What this paper adds

- Prior care experience has both positive and negative effects on nursing students' compassionate values and behaviours, however positive effects do not extend to qualification.
- No statistically significant differences were found in any of the quantitative outcome measures used as proxies of compassionate values and behaviours (emotional intelligence, compassion satisfaction and fatigue, resilience, psychological empowerment, and career commitment), between participants with and without paid prior care experience.
- There is insufficient evidence of longitudinal beneficial impact to recommend paid prior care experience as an effective intervention to foster nursing students' compassionate values and behaviours.

1. Background

Internationally, patients, families, healthcare professionals and policy makers alike consider compassion to be critical to the provision of high-quality healthcare (Sinclair et al., 2016; Brito-Pons and Librada-Flores, 2018). As such, compassion forms an essential, foundational concept and core competency in nursing education, where compassionate values and behaviours are taught and cultivated throughout the course of training (Smith and Smith, 2020; Hooper and Horton-Deutsch, 2023; Everitt-Reynolds et al., 2022). Failings in compassion, with associated failings in care quality, have been identified however (e.g. Francis, 2013) and consequently, compassion is foregrounded internationally as an issue of concern (e.g., Field-Richards et al., 2023, Tierney et al., 2019, Sinclair et al., 2016, Flynn and Mercer, 2013, Sinclair et al., 2017, Blomberg et al., 2016, Bond et al., 2018).

A number of interventions have been developed to improve compassion in healthcare (Blomberg et al., 2016; Sinclair et al., 2016; Brito-Pons and Librada-Flores, 2018). One such intervention, recommended following an inquiry into failings in care at a National Health Service Trust in the United Kingdom, is mandating a period of paid care experience as a prerequisite for admission into pre-registration nurse education (Francis, 2013; Department of Health, 2013a). This recommendation was reiterated by the United Kingdom Department of Health (2013b) alongside a national strategy and vision for 'Compassion in Practice' for nursing, midwifery, and care staff (Department of Health, 2012). In this strategy, compassion is characterised by the values and behaviours of care, compassion, competence, communication, courage, and commitment. In response to the prior care experience recommendation, Health Education England (2014) commissioned national pre-nursing experience pilots, providing individuals with paid care experience working as a healthcare assistant for up to a year, to test their compassionate values and behaviours.

Publication of the prior care experience recommendation catalysed a proliferation of international research and debate surrounding compassion in nursing and the recommendation itself (Field-Richards et al., 2023, Council of Deans of Health, 2013). A recent international scoping review demonstrates that evidence to support the efficacy of prior care experience as a means of ensuring or improving nursing students' compassionate values and behaviours is inconsistent, insufficient and displays significant methodological limitations (Field-Richards et al., 2023). Knowledge surrounding the appropriateness and effectiveness of prior care experience as an intervention to support the international agenda of improving compassion in nursing is therefore limited and inconclusive.

Commissioned by the Department of Health in the United Kingdom, this research addressed the question 'What is the impact of paid prior care experience on the values and behaviours of pre-registration nursing students indicated as characterising compassionate care?' To the authors' best knowledge, supported by the international literature review by Field-Richards et al. (2023), this research is the first to consider the longitudinal impact of prior care experience among student nurses from entry to post-qualification. This research therefore extends the current prior care experience evidence base to inform nursing educational and workforce policy and practice.

2. Methods

This study is reported in accordance with the Good Reporting of a Mixed Methods Study (GRAMMS) framework (O'Cathain et al., 2008). Philosophically, the research was underpinned by pragmatism (e.g., Johnson and Onwuegbuzie, 2004) and adopted a longitudinal mixed methods design, employing a modified concurrent triangulation strategy (e.g., see Kroll and Neri, 2009). Accordingly, two work packages (qualitative and dominant quantitative, described in Sections 2.1 and 2.2 respectively) were conducted simultaneously, with qualitative and quantitative data afforded equal priority. Data from each work package were analysed separately (qualitative by S.E.F.-R., quantitative by A.A. and J.S.L.) prior to integration at methods level through merging (Fetters et al., 2013). At the level of interpretation and reporting, qualitative and quantitative data were integrated by S.E.F.-R. and J.S.L. through a contiguous narrative approach in the findings, and through weaving in the discussion (Fetters et al., 2013). Fig. 1 provides an overview of the research design.

Consistent with Johnson et al.'s (2007) analysis of seminal mixed methods work, employing a mixed methods approach allowed us to consider the phenomenon of prior care experience from multiple perspectives, triangulating methodologies, data sources, investigators, and theories (Denzin, 1978). This in turn promoted richer data and confidence in findings through corroboration and convergence (Johnson and Onwuegbuzie, 2004), whilst allowing for new thinking from attending to potential contradiction and paradox (Jick, 1979; Rossman and Wilson, 1985; Denzin, 1978). Qualitative findings assisted in contextualising, interpreting, illustrating, and elaborating on quantitative data (Sieber, 1973, Greene et al., 1989 [in Johnson and Onwuegbuzie, 2004]). Our quantitative methods permitted the development of breadth through invitation and participation of a larger sample than would have been possible employing qualitative methods only. Reflective of Gestalt thinking, we also valued the ability to iteratively develop a third viewpoint of meta-inferences (the whole), informed by but separate to and going beyond insights from qualitative or quantitative data alone, providing a mixed worldview that is more than the sum of its parts (Onwuegbuzie and Johnson, 2006). Although combining qualitative and quantitative approaches was resource intensive, consuming more time, labour, and expertise than if the research had been conducted adopting one method alone, our approach allowed a more comprehensive understanding of the impact of prior care experience, increasing research utility.

2.1. Work package 1 (telephone interviews with Health Education England pilot participants)

Work package 1 was qualitative and involved longitudinal telephone interviews with a purposive sample of individuals who had participated in the Health Education England pre-nursing experience pilots (pilot participants), identified in Section 1. The design and characteristics of

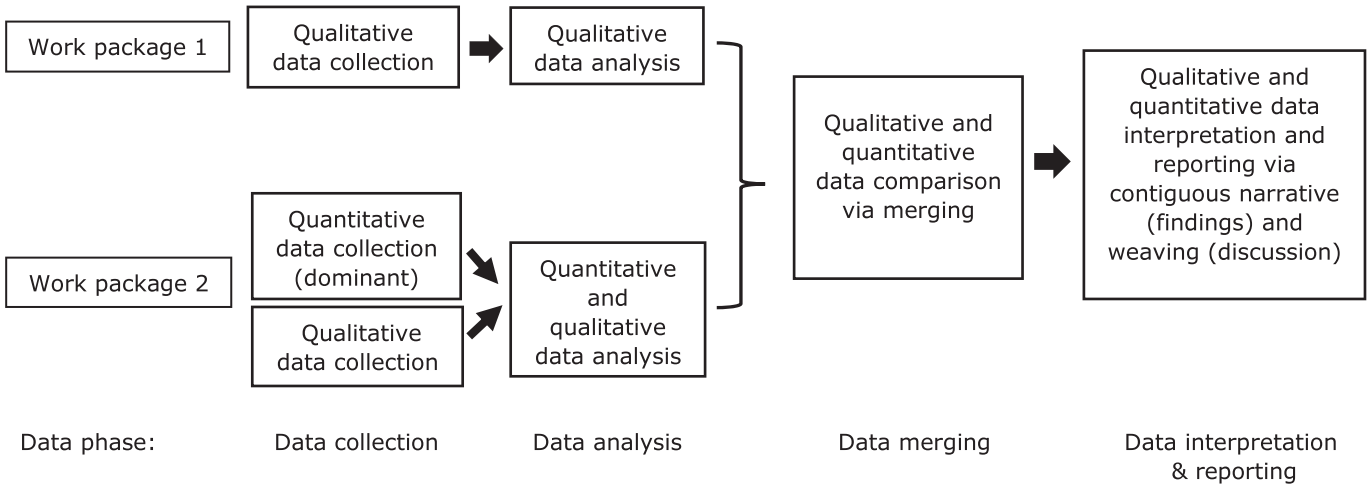

Fig. 1. Overview of research design.

work package 1 described in the following sections are summarised in Supplementary Table 1.

2.1.1. Recruitment and participants

All pilot participants were invited to take part in the research via an email from a Health Education England representative. The inclusion criterion for this aspect of the research was therefore that participants must have participated in the Health Education England pilot. Of the 10 participants who consented to be interviewed, eight had become student nurses, one had commenced midwifery training and one was working outside healthcare. All participants identified as female and were between 20 and 39 years of age when data collection commenced. All 10 individuals participated at time point 1. Four of the eight student nurses from time point 1 subsequently participated at time points 2 and 3. At time point 1, student participants were in their first year or at the start of their second year of training (depending on the month of university course intake). Time point 2 corresponded with participants' third (final) year of training and interviews at time point 3 occurred post-qualification.

2.1.2. Data collection and analysis

Telephone interviews were semi-structured and facilitated using an interview guide. Topics explored included experience of undertaking the pilot, the impact of prior care experience on academic and clinical practice, compassionate values and behaviours (Department of Health, 2012), expectations and perceptions of nursing, the prior care experience recommendation, and future aspirations. The guide was adapted for use at each time point and used flexibly, with the interviewer responding to developing participant narratives and ensuring that participants were able to identify and discuss issues pertinent to their understandings and experiences (Braun and Clarke, 2013).

Interviews lasted for an average of 63 min, were audio-recorded, transcribed verbatim and thematically analysed following a reflexive thematic analysis approach (see Braun and Clarke, 2006, 2021a, 2023), by S.E.F.-R.. Acknowledging the active role of the researcher as a resource in data analysis, knowledge production, and linking personal reflexivity to analytic practice, a reflexive awareness of S.E.F.-R.'s positionality, as for example, a Registered Nurse (adult) (with prior care experience), lecturer, researcher and sociologist with expertise in professions and healthcare contexts, was maintained and discussed throughout the data analysis process (Braun and Clarke, 2021a, 2023). Analysis was data-driven and approached in an open fashion. Although an analytical framework was not therefore imposed on the data a priori, the values and behaviours characterising compassion, identified by the Department of Health (2012) (care, compassion, competence, communication, courage, and commitment), formed overarching concepts to which the developed themes related. These characteristics were therefore then used as an interpretive, organising framework, forming the basis for the presentation of qualitative findings.

2.2. Work package 2 (questionnaires and focus groups with nursing students)

Work package 2 adopted a concurrent embedded strategy with a dominant quantitative component. The quantitative component involved online completion of a series of longitudinal validated self-report questionnaires, designed as proxy measures of compassionate values and behaviours (Department of Health, 2012), with the hypothesis that paid prior care experience would enhance these values and behaviours among nursing students. The embedded qualitative component involved focus groups with student nurses. The design and characteristics of work package 2 described in the following sections are summarised in Supplementary Table 1.

2.2.1. Recruitment, participants, data collection and instruments

All first-year pre-registration nursing students attending three universities in the United Kingdom were invited to take part in the online questionnaire component of work package 2. The inclusion criterion for this component of the research was therefore that participants must be first-year pre-registration nursing students attending one of the three universities participating in the research. Students with paid, unpaid and no prior care experience were therefore eligible to participate, in order to allow the research to capture the full range of potential prior care experience scenarios naturally existing within, and provide good representation of, the student nurse population. Reflecting the focus on paid prior care experience recommended by Francis' (2013), the Department of Health (2013a, 2013b) and in the Health Education England (2014) pilot, the research compared those with paid and without paid (unpaid/no) prior care experience. Students were invited to participate via recruitment presentations delivered during lectures and an invitation email. Participants were sent links to and asked to complete questionnaires at 4 time points. As such, a convenience sampling method was employed.

Questionnaire time points corresponded with each of the three years of participants' training and one post-qualification. Participants were asked to complete a demographic questionnaire to quantify the nature of any prior care experience and the validated instruments (see Table 1), to determine whether there were any changes over the course of students' study and post-qualification. The questionnaires measured the constructs of emotional intelligence (state and trait),

Table 1
Validated questionnaire instruments employed.

Instrument	Construct measured	Description
Schutte Emotional Intelligence Scale (SEIS) (Schutte et al., 1998)	State emotional intelligence	A 33 item scale with a Cronbach's alpha of 0.9, suggesting high reliability
Trait Emotional Intelligence Questionnaire – Short Form (TEIQ-SF) (Petrides and Furnham, 2006)	Trait emotional intelligence	A 30 item scale with a Cronbach's alpha of 0.89 for men and 0.99 for women, suggesting good reliability
Professional Quality of Life Scale (ProQoL) (Stamm and Figely, 1996)	Compassion satisfaction and compassion fatigue	A 30 item scale with a Cronbach's alpha score of 0.8, suggesting good reliability
Connor Davidson Resilience Scale (CD RISC) (Davidson and Connor, 2014)	Resilience	A 25 item scale with a Cronbach's alpha score of 0.91, suggesting high reliability
Learner Empowerment Measure (LEM) (Frymier et al., 1996)	Psychological empowerment (state)	A 38 item scale with a Cronbach's alpha score of 0.91, suggesting high reliability
Gardener Career Commitment Scale (Gardner, 1991)	Career commitment	A 7 item scale with a Cronbach's alpha score of 0.8–0.82, suggesting good reliability

compassion satisfaction and fatigue, resilience, psychological empowerment (state) and career commitment. Table 2 identifies the questionnaires completed and number of participants (sample size) at each time point. As identified in Table 2, two questionnaires were not completed at time point 1. The Professional Quality of Life Scale (Stamm and Figely, 1996) requires completion in relation to experience in clinical practice. Students' first clinical placements are located in different places in the first year curriculum at different institutions. We therefore introduced this questionnaire at time point 2 to ensure that all participants had undertaken a clinical placement before completing the questionnaire. Similarly, the Learner Empowerment Measure (Frymier et al., 1996) required that students had sufficient experience of the academic learning environment on their course, and was therefore introduced at time point 2.

Regarding focus groups, participants who had indicated willingness in the demographic questionnaire were invited by email to participate. The inclusion criterion for this aspect of the research was therefore that participants must have indicated a willingness to be contacted with a focus group invitation in the demographic questionnaire associated with the questionnaire component of the research. All focus group participants identified as female and were between 18 and 42 years of age when data collection commenced. Focus groups (n = 4) were conducted with participants (total n = 8), with separate focus groups held for participants with and without prior care experience (3 focus groups and 1 focus group respectively). All participants with prior care experience had undertaken paid prior care experience aside from one, who had undertaken formal prior care experience on a voluntary basis. Discussions were facilitated by use of a focus group guide analogous to that used in telephone interviews (see Section 2.1.2) but adapted to general rather than pilot prior care experience, in the case of groups with prior care experience (reflecting that focus group participants had general rather than pilot prior care experience and therefore this topic would not be relevant). The guide for those without prior care experience comprised questions exploring topics including experiences of their nursing course (academic aspects and clinical placements), expectations and perceptions of nursing, perceptions of the impact of prior care experience on compassionate values and behaviours (Department of Health, 2012), and reflections on not having prior care experience, and the prior care experience recommendation. Collecting data from these participants without prior care experience allowed for the exploration of the impact of prior care experience by absence, for example, considering whether a lack of prior care experience was considered to be problematic, or associated with particular benefits or challenges, which could also be considered in light of the narratives of participants with prior care experience concerning the impact of absence. Data from these participants therefore increased the depth of exploration of the impact of prior care experience and its inherent complexity.

2.2.2. Data analysis

Quantitative data were processed and analysed using Microsoft Excel and IBM SPSS Statistics v.26. Univariate and multivariate assumptions were tested to identify potential sources of bias in the data (missing data, outlier detection, and tests of assumptions of normality, homogeneity of variance, and multicollinearity). These were examined according to the recommendations by Field (2009) and Tabachnik and Fidell (2006). Descriptive statistics were utilised to describe participants' demographic features, and General Linear Modelling and Mann Whitney *U* tests were used to determine any temporal effects on any of the outcome measures and differences between participants with and without paid prior care experience respectively.

Focus groups lasted for an average of 67 min, with the analysis process mirroring that for telephone interviews (Section 2.1.2). Qualitative telephone interview data from work package 1 and focus group data from work package 2 were analysed separately prior to integration by S.E.F.-R..

2.3. Ethical approval and consent

Ethical approval for the research was granted by the University of Nottingham Faculty of Medicine and Health Sciences Research Ethics Committee (reference D12022015 SoHS). Informed consent was obtained from all participants prior to participation for all components of the research. Consent for participation in the quantitative component was implied through questionnaire completion, written consent was obtained for participation in focus groups and verbal consent was gained prior to telephone interviews.

Table 2
Questionnaires completed and number of participants (sample size) at each time point.

Questionnaire	Time point 1 Year 1 of study (n=)	Time point 2 Year 2 of study (n=)	Time point 3 Year 3 of study (n=)	Time point 4 Post-qualification (n=)
Demographic questionnaire	220	N/A	N/A	N/A
Schutte Emotional Intelligence Scale (SEIS)	160	62	67	27
Trait Emotional Intelligence Questionnaire – Short Form (TEIQ-SF)	154	57	56	23
Connor Davidson Resilience Scale (CD RISC)	155	56	52	26
Career Commitment Scale	159	61	63	26
Professional Quality of Life Scale (ProQoL)	N/A	61	63	26
Learner Empowerment Measure (LEM)	N/A	58	55	24

3. Results

3.1. Qualitative findings

As reported in Section 2.1.2, the values and behaviours characterising compassion (Department of Health, 2012) formed an interpretive, organising framework for presentation of qualitative data. Findings are therefore reported here in accordance with the six characteristics of care, compassion, commitment, communication, competence, and courage. Participants employed the concepts of care and compassion interchangeably in their narratives however and this confluence is reflected in the reporting of care and compassion as one theme 'compassionate care'. To protect confidentiality and preserve anonymity, participant quotations presented are followed by their participant number (Px) and the time point of the interview (TPx) or focus group number (FGx).

3.1.1. Compassionate care

Participants suggested that although care and compassion are innate, prior care experience has an indirect professionalising impact, for example, through the teaching of appropriate professional boundaries and emotional resilience, conducive to the provision of compassionate care.

> 'I think I am naturally caring and compassionate, not wanting to sound like, big headed or anything…[prior care experience] just gave me the tools to be compassionate and how to do it properly.'
>
> [[P6, TP1]]

Interview participants reported prior care experience to instil foundational values and behaviours characterising compassionate care, together with fostering inter-professional caring and compassion through affording the development of empathetic understanding of the healthcare assistant role.

> '[Healthcare assistants] appreciate me like I appreciate them…I know how they work…you are able to kind of empathise to your colleagues who you work with…so you can actually like increase [compassionate values and behaviours] within your own role.'
>
> [[P10, TP3]]

Focus group data suggested that foundational compassionate values and behaviours may equally be instilled during the first year of nurse education and training however, and that life experience may serve similarly to prior care experience in terms of a professionalising function. It was also suggested that poor quality prior care experience and 'the kind of people that surround you' [P2, FG4] can introduce the potential for negative socialisation in relation to care and compassion.

3.1.2. Commitment

Prior care experience was reported to inform and test commitment to nursing ahead of commencing training, by allowing individuals to ascertain the reality of nursing work — 'seeing up front what a nurse did' [P9, TP3], allowing an appreciation of 'what I was letting myself in for' [P4, TP3], rather than relying upon media portrayals and public perceptions ('it isn't all what you see on tele' [P10, TP3]). In allowing individuals to inform and test their commitment before formally committing to a nursing course, it was suggested that prior care experience offered a 'safety net', providing the opportunity to 'drop out' before commencing training and ensuring that continuing individuals were genuinely committed in an informed way. Despite this, prior care experience did not appear to prevent reality shock (Kramer, 1974) associated with becoming a student nurse or on qualification, for example in relation to the responsibilities and scope of the nursing role, which was articulated as different to and 'not like that' [P9, TP3] encountered when working as a healthcare assistant during prior care experience. The required amount and level of nursing knowledge, competence and autonomy, the intensity of the nursing workload, and extent of contemporary healthcare challenges also featured as sources of reality shock. Language used when describing these instances included experiencing a 'baptism of fire' [P4, TP1], being 'terrified' and in at the 'deep end' [P9, TP2], with feelings of responsibility 'looming there all the time' [P5, TP2].

It appeared therefore that prior care experience working in the role of a healthcare assistant had a limited capacity to inform individuals' commitment to the 'reality' of nursing.

3.1.3. Communication

Content relating to the impact of prior care experience on communication was limited. Emphasis was instead placed on the positive impact of life experience and university training (academic and clinical).

> 'Other students without experience will eventually learn [communication skills], it's just we've got that slight advantage to start with, so I think everything does even out because the course does teach you all these things like the first few months all it was just communication, communication.'
>
> [[P1, FG3]]

Benefits that were identified were often of a broad and general nature. Participants suggested that prior care experience provided them with the opportunity to communicate with patients from diverse backgrounds and with diverse communication needs, developing their communication skills, both general and those more specific to their prior care experience context, increasing their confidence in relation to communication. Prior care experience was reported to provide the general experience necessary to overcome the 'awkward' and 'weird moments', when communication 'doesn't come naturally' [P5, TP3].

At the final time point, few benefits of prior care experience were identified and were not related to current practice, suggesting that whilst prior care experience may have a positive impact on the initial development of communication skills and confidence, it has little impact on communication longitudinally and as a Registered Nurse.

3.1.4. Competence

The impact of prior care experience on competence was discussed in clinical, academic, and socio-cultural terms. Prior care experience appeared to have a positive impact in relation to clinical and academic competence initially. Clinically, for example, participants described learning how to perform fundamental 'hands on' [P7, TP1] elements of nursing care, including assisting patients with washing, dressing, eating, drinking, personal hygiene needs and performing physiological observations. As a consequence of this competence, participants suggested that they had commenced their training in an advanced position, 'one step ahead' [P4, TP3]. Academically, prior care experience was reported to have developed a readiness for learning, for example by developing an understanding of the language and lexicons of nursing, allowing participants to comprehend more easily what was taught at university.

Although prior care experience appeared to have a positive impact in relation to clinical and academic competence initially, benefits plateaued and did not extend longitudinally to post-qualification practice, appearing largely confined to the early stages of training. Prior care experience had assisted with teaching foundational skills associated with the healthcare assistant role but having 'stepped up into the next lot of learning' [P5, TP2], it did not appear to have provided a head start with the clinical skills expected of the (student) nursing role. Owing to differences between the healthcare assistant and (student) nurse role, prior care experience was not reported to be of any substantial benefit to clinical competence beyond foundational skills development. Further, individuals without prior care experience were reported to 'catch up' with competence during training and did not report experiencing significant challenges in relation to competence, in focus groups. Prior care experience was also associated with the potential to develop 'bad habits' [P4, TP2] in relation to poor practice, and

there was evidence to suggest that the extent of competence benefits reported by interview participants was associated with the 'special' nature of the Health Education England pilot. Participants reported for example, that they were often supernumerary and presented with additional learning opportunities beyond those available to 'standard' healthcare assistant colleagues. They were made aware of clinical aspects that 'auxiliary nurses don't need to know' [P5, TP3] and exposed more to the 'nursing role even though I was working as a healthcare assistant' [P9, TP2]. Participants also expressed a great sense of pride associated with having been involved with the pilot.

> "I still have, like there's a little badge that you put your ID clip on. It's different from everyone else's. It's yellow and it says 'The Pre-Nursing Experience'. I will often get asked why is my badge different and I change it because I like having that on. And I say you know, 'I have been on this thing…' and explained it to patients."
>
> [[P5, TP2]]

Prior care experience appeared to have an impact on socio-cultural competence, in the form of instilling a work ethic emphasising the importance of physical labour, serving socio-cultural functions. This work ethic of 'mucking in' was identified as a potentially unique affordance of prior care experience and emphasised team-working, flexible role boundaries and appeared to extend to post-qualification practice, with a positive impact on working relationships. As a consequence of working as a healthcare assistant during prior care experience, participants suggested that they were prepared to 'get stuck in' [P10, TP1] and perform tasks associated with the healthcare assistant rather than student role, to ensure the provision of compassionate care, contrasted with students without prior care experience who were considered to defend role boundaries more rigidly. Although this willingness to 'co-share the workload' [P5, TP3] was reported to facilitate social integration, acceptance and make for 'a better working environment' [P5, TP3], internalisation of the work ethic of 'mucking in' appeared to create challenges in relation to transitioning from the healthcare assistant role to that of a student and then to Registered Nurse. Participants reported that prior care experience 'can make it quite difficult to get out of the habit of getting on the ward and washing everybody and helping everybody' rather than 'actually doing the jobs like the drug round with the nurse in the morning' [P9, TP1]. Further, when participants did not feel confident on student placements, they referred to 'putting on that front' and 'mucking in just as much as everyone else' [P10, TP1], suggesting that not only is this work ethic mobilised to assist in easing transitions in unfamiliar situations, but that reverting to healthcare assistant work may form a 'comfort zone' employed to ease role transitions, when feeling uncomfortable.

Although focus group participants did not identify this work ethic, they similarly reported prior care experience to have eased social integration during clinical placements and experienced challenges associated with role transition, including for example, the requirement to employ 'a different way of thinking' [P1, FG1] as a student nurse.

3.1.5. Courage

Prior care experience was reported to have an initial positive impact in the context of reporting concerns and personal assertiveness, providing a reference point for practice standards and the courage of one's convictions when identifying and reporting poor practice.

> "I got a view of how I believe people should be treated and anything less is not acceptable…I didn't just walk into a ward thinking 'Oh that's just normal practice', I've actually worked in care and that shouldn't happen."
>
> [[P2, FG3]]

These benefits did not appear to extend post-qualification however, where individual competence was identified as providing the courage to challenge practice. Further, evidence existed to suggest that prior care experience may reduce the likelihood of individuals assessing that poor practice requires reporting, through the development of an increased tolerance threshold for compromised caring. Here, individuals without prior care experience were described as being overzealous in their reporting practices, making 'a big hoo harr' about practice which deviated from the 'gold standard' taught at university [P9, TP1].

Also holding implications for reporting behaviour, tension was identified between academic (university) and practice (prior care experience) socialisation, as sources informing understandings of 'correct' practice, reminiscent of the well documented nursing theory–practice gap (e.g., see Maben et al., 2006). The valorisation of clinical practice and adoption of a critical attitude towards theory and evidence-based practice taught at university (as 'absolutely pointless' and 'not the best way to do it' [P4, TP2]) were identified, suggesting that socialisation during prior care experience may reduce the likelihood of recognition of poor practice and subsequent reporting, perpetuating existing (poor) practice culture.

3.2. Quantitative findings

3.2.1. Demographic data

The age of participants ranged from 18 to 51 years, with a mean age of 28 ± 0.6 years. 89.3 % of participants identified as female and 10.7 % male. 60.4 % of participants had paid prior care experience of less than 1 month to 15 years. Participants with paid prior care experience were statistically significantly older than participants without paid prior care experience (29.4 ± 0.75 years vs 25.3 ± 1.02 years; $p = 0.002$). This data suggests that the sample provides a good representation of the nursing workforce nationally in terms of these characteristics, with the largest proportion of applicants to nursing aged above 25, and 10.7 % of nursing registrants are male (see Royal College of Nursing, 2019).

3.2.2. Descriptive statistics

Whole group data suggest that participants had good levels of resilience, emotional intelligence, career commitment and psychological empowerment and that these remain stable over time (Table 3).

Table 3
Whole group data — resilience, emotional intelligence, career commitment and learner empowerment.

Measure	Mean ± SEM (n)			
	Time point 1	Time point 2	Time point 3	Time point 4
Connor Davidson Resilience Scale (CD RISC) (Davidson and Connor, 2014)	77.52 ± 0.86 (155)	77.09 ± 1.59 (56)	77.42 ± 1.54 (52)	78.54 ± 2.24 (26)
Schutte Emotional Intelligence Scale (SEIS) (Schutte et al., 1998)	130.68 ± 1.00 (160)	129.40 ± 1.85 (62)	131.40 ± 1.94 (67)	131.30 ± 1.99 (27)
Trait Emotional Intelligence Questionnaire — Short Form (TEIQ -SF) (Petrides and Furnham, 2006)	167.26 ± 1.51 (154)	166.72 ± 2.62 (57)	167.61 ± 2.50 (56)	162.52 ± 4.09 (23)
Gardener Career Commitment Scale (Gardner, 1991)	4.62 ± 0.03 (159)	4.57 ± 0.06 (61)	4.45 ± 0.07 (63)	4.37 ± 0.08 (26)
Learner Empowerment Measure (LEM) (Frymier et al., 1996)	N/A	78.40 ± 1.87 (58)	76.65 ± 1.80 (55)	78.58 ± 2.89 (24)

Participants also exhibited a high level of self-reported compassion satisfaction across time points (high = score of 42 or greater). In relation to compassion fatigue scores, for the burnout component these are classed as low (score of 22 or less) at time points 2 and 3 but rise to moderate (score of 23–41) following qualification (time point 4). The secondary traumatic stress component of compassion fatigue remains low across all time points (Table 4).

3.2.3. Within group analysis of temporal effects

Analysis of variance demonstrated no statistically significant differences over time for either group of participants (with or without paid prior care experience) in relation to psychological empowerment, career commitment or emotional intelligence. Participants with paid prior care experience did however demonstrate a small but statistically significant increase in resilience over time ($p = 0.047$).

In relation to quality of life factors, neither group exhibited statistically significant changes in compassion satisfaction or compassion fatigue (burnout) over time. Both groups however demonstrated a statistically significant increase in compassion fatigue (secondary traumatic stress) post-qualification (paid prior care experience $p = 0.017$; without paid prior care experience $p = 0.01$). Please see Supplementary Table 2.

3.2.4. Between groups analysis

No statistically significant differences were found between participants with and without paid prior care experience for any measure at any time point (see Supplementary Table 3).

4. Discussion

This section integrates the qualitative and quantitative data through narrative employing a weaving approach, critically discussing findings in the context of existing international literature, on a theme-by-theme basis (Fetters et al., 2013). Implications for educational and workforce policy and practice are identified.

4.1. Compassionate care

Qualitative findings suggest that prior care experience has an indirect, professionalising impact on aspects of compassionate care among student nurses, including supporting the development of resilience conducive to the sustained provision of compassionate care. This impact was not identified post-qualification however and quantitative findings do not demonstrate a statistically significant difference in resilience between those with and without paid prior care experience. In addition, focus group data suggests that life experience may serve similarly to prior care experience in terms of the development of resilience, and that poor quality prior care experience can introduce the potential for negative socialisation in relation to care and compassion, highlighting the importance of the nature of prior care experience in influencing impact.

Importantly, there was no evidence to suggest that participants without prior care experience did not hold values consistent with the provision of compassionate care. Similarly, no statistically significant differences between participants with and without paid prior care experience were detected in relation to either emotional intelligence or compassion satisfaction, although compassion fatigue (secondary traumatic stress) was statistically significantly increased in both groups post-qualification, suggesting that prior care experience does not serve a protective function in preventing compassion fatigue. Our findings are consistent with existing evidence which reports that prior care experience does not impact emotional intelligence (Štiglic et al., 2018; Snowden et al., 2015) and extend previous research suggesting no difference between caring values amongst those with and without prior care experience on entry (Scammell et al., 2017) to the early post-qualification period. If compassion fatigue can be taken as a proxy for caring behaviours, as Nolte et al. (2017) suggest, our data would support that of Murphy et al. (2009) who demonstrate a decline in caring behaviours through nurse training, although our data does not demonstrate an impact of prior care experience on this decline.

Bruce et al. (2010) suggest that prior care experience may act as an enabler for coping with stress and preventing burnout via a positive impact on active engagement with studies. Whilst qualitative findings suggest that prior care experience fosters emotional resilience, no difference in resilience was observed quantitatively between groups with and without paid prior care experience in this study. Considering these findings in the context of the quantitatively observed increase in compassion fatigue post-qualification, interview data suggest that the reality shock encountered associated with transitioning from the student to Registered Nurse role, and the extent of contemporary challenges facing nursing in healthcare (which was not prevented by prior care experience), may account for the increase in compassion fatigue observed. Resilience in nursing is of international concern (Cleary et al., 2018; Aljarboa et al., 2022). A greater focus on strategies to build and promote resilience, in the form of 'critical resilience' (Traynor, 2017), empowerment and wellbeing more broadly within pre-registration nursing education and amongst the newly qualified nursing workforce, may offer the potential to mitigate against increases in compassion fatigue resulting from these factors, in turn supporting the provision of high-quality nursing care.

Overall, whilst qualitative findings suggest that good quality prior care experience can have an indirect positive impact on aspects of care and compassion among student nurses, this is not supported longitudinally or by quantitative outcome measures, which did not demonstrate a difference between those with and without paid prior care experience.

4.2. Commitment

Within interview and focus group data, prior care experience was considered to allow individuals to inform and test their commitment to nursing ahead of commencing training. Consistent with the findings of Scammell et al. (2017), interview data suggest that to some extent, prior care experience fosters an appreciation of the wider context in which nursing care is delivered and associated contemporary challenges. Prior care experience did not however prevent reality shock associated with becoming a student nurse, or upon qualification. Similarly, whilst O'Brien et al. (2008) found that prior care experience was deemed to inform and test commitment, it did not prevent reality shock as a student nurse in Brennan and McSherry's (2007) research. Findings of the present study extend this evidence surrounding prior care experience and reality shock longitudinally, beyond the end of nurse training, demonstrating relevance to the transition from student to Registered Nurse. 'Reality shock' (Kramer, 1974) is a well-

Table 4
Whole group data — compassion satisfaction and compassion fatigue.

Professional Quality of Life Scale (ProQoL) (Stamm and Figely, 1996) factor	Mean ± SEM		
	Time point 2 (n = 61)	Time point 3 (n = 63)	Time point 4 (n = 26)
Compassion satisfaction	44.35 ± 0.65	43.11 ± 0.64	42.63 ± 0.85
Compassion fatigue — burnout	19.84 ± 1.91	20.84 ± 0.77	23.46 ± 1.18
Compassion fatigue — secondary traumatic stress	18.59 ± 0.57	20.37 ± 0.68	22.15 ± 1.31

documented, perennial issue within research exploring student to qualified nurse transition experiences (e.g., see review by Masso et al., 2022). Although the consequences of reality shock can be significant, including attrition and decreases in quality of care (Stacey and Hardy, 2011), our research suggests that prior care experience does not protect against reality shock upon qualification — or 'transition shock' (Duchscher, 2009). It appears therefore that prior care experience working in the role of a healthcare assistant has a limited capacity to inform individuals' commitment to the 'reality' of nursing.

In relation to attrition, both interview and focus group participants report that by providing a 'safety net' and the opportunity to 'drop out' prior to training, prior care experience may prevent attrition from nurse training. There is mixed evidence for prior care experience mitigating against attrition however (see Field-Richards et al., 2023). Quantitative findings show that participants exhibited a high degree of career commitment to nursing and that this was not affected by whether participants had undertaken paid prior care experience.

4.3. Communication

Both interview and focus group participants suggested that prior care experience provides diverse experiential communication opportunities, with a positive impact on the initial development of communication skills and confidence. Similarly, participants with prior care experience in Houghton et al.'s (2013) study reported feeling more confident in the performance of communication skills and more confident students' communication with staff and patients in the clinical environment was observed to be more effective. Although a central facet of nursing care providing benefits initially, prior care experience appears to have a limited impact on student nurses' communication skills longitudinally, mirrored by the findings of Skoglund et al. (2018). As Skoglund et al. (2018) also propose, focus group participants suggested that life experience and nurse training serve an analogous purpose in promoting proficiency in communication.

4.4. Competence

Although prior care experience appears to have an initial positive impact in relation to clinical and academic competence, benefits plateau, do not extend longitudinally through training to post-qualification practice, and those without prior care experience were considered to 'catch up' during training and do not report experiencing significant challenges in relation to aspects of competence. Highlighting the importance of the nature of prior care experience, the potential for the development of 'bad habits' in relation to poor practice was also identified. Although focus group participants identified competence benefits, these were less emphasised than in interviews and there was evidence to suggest that the extent of clinical competence benefits reported by interview participants was associated with the 'special' nature of the Health Education England pilot. Indeed, Stombaugh and Judd (2014) suggest that it is challenging to assess how prior care experience impacts on students' competence due to its lack of standardisation and difficulties associated with controlling for variety, with the consequence that it is unlikely that students with prior care experience enter training with uniform competence. Contrary to what is suggested in qualitative findings, Stenhouse et al. (2016) found that nursing and midwifery students with prior care experience obtained lower marks in nursing course modules incorporating clinical and academic aspects than students without prior care experience, indicating that nursing performance was adversely affected by prior care experience.

Interview data suggests that prior care experience working as a healthcare assistant had a positive impact on socio-cultural competence in terms of the development of a work ethic of 'mucking in', emphasising team-working, flexible role boundaries and underpinned by an empathetic understanding of the healthcare assistant role. This work ethic appeared to extend to post-qualification practice, with a positive impact on working relationships reported. This work ethic has not been documented previously amongst student nurses in the prior care experience literature (Field-Richards et al., 2023), although nursing research identifies a similar work ethic, emphasising 'getting the work done' to avoid labelling as a 'bad' 'lazy' nurse, instilled through occupational socialisation, within nursing culture (Field-Richards, 2017:253; Maben et al., 2006; Melia, 1984). In the present study however, the work ethic of 'mucking in' was overtly discussed, adopted a more team-focused rather than individual orientation, and was socialised whilst working as a healthcare assistant, indicative of the existence of a parallel work ethic within healthcare assistant culture.

The work ethic of 'mucking in' was also reported to create challenges in relation to transitioning from the healthcare assistant to student and Registered Nurse roles, however. Reversion to healthcare assistant work as a form of comfort zone has also been noted by Brennan and McSherry (2007), as a strategy used by students with prior care experience working as a healthcare assistant, to manage reality shock associated with clinical placements, and promote acceptance during their socialisation and transition to the student role. Although participants reported that this work ethic may be a unique affordance of prior care experience working as a healthcare assistant (and were sceptical that it could be developed by those without this experience), literature shows that most nursing students undertake part-time employment in a healthcare assistant role whilst enrolled on a nursing course (Hasson et al., 2013). Such concurrent care experience may function in a similar way to prior care experience in fostering aspects of socio-cultural competence.

4.5. Courage

Although quantitative measures did not show a significant difference in levels of empowerment or resilience between those with and without paid prior care experience, interview and focus group data suggest that prior care experience has a positive impact in the context of reporting concerns, through providing a point of comparison for practice standards, allowing the courage of one's convictions. This affordance did not extend longitudinally however and there was evidence to suggest that prior care experience may reduce the likelihood of individuals assessing that poor practice required reporting, through mechanisms relating to tolerance thresholds for compromised caring and theory–practice gap negotiations. These findings are particularly important, given that they appear to be the first documenting the impact of prior care experience on courage and reporting concerns (see Field-Richards et al., 2023).

4.6. Implications for nursing educational and workforce policy and practice

This research is the first to investigate the longitudinal impact of prior care experience among student nurses from training entry to post-qualification. Our qualitative findings demonstrate both positive and negative impacts of prior care experience, however positive impacts do not appear to be sustained longitudinally, and negative impacts can extend post-qualification. No statistically significant differences in any of the quantitative outcome measures used as proxies of compassionate values and behaviours (emotional intelligence, resilience, career commitment, psychological empowerment, compassion satisfaction and compassion fatigue) were detected between participants with and without paid prior care experience. An increase in compassion fatigue was identified in both groups of participants post-qualification, likely resulting from encountering the reality of nursing in contemporary healthcare. Paid care experience did not appear to prevent participants from experiencing reality shock initially on becoming a student nurse, or on qualification as a Registered Nurse. These findings do not therefore support mandating a period of paid care experience as a prerequisite for entry into nurse training, as a means of improving compassion in nursing.

The findings of this research support the international impetus to increase the size of the nursing workforce (World Health Organisation, 2020) over a shorter timeframe, by allowing applicants who display

appropriate values and behaviours at interview but do not have paid prior care experience, to enter nurse training. The importance of resilience and empowerment in nursing is highlighted internationally (Cleary et al., 2018; Aljarboa et al., 2022; Field-Richards, 2017; Laschinger et al., 2013), including in relation to workforce retention (Lee and De Gagne, 2022; Spence Laschinger et al., 2009; Wagner et al., 2010). Whilst our findings did not demonstrate any difference in these measures between participants with and without paid care experience, an increased focus on strategies to build and support critical resilience (Traynor, 2017) and empowerment amongst the newly qualified nursing workforce, may offer the potential to contribute towards preventing compassion fatigue, in turn promoting the provision of high-quality, compassionate nursing care and workforce retention.

5. Limitations/contextual considerations

The findings of this research should be viewed in the context of its limitations/contextual considerations, which relate to participant attrition, and the nature of the pilot participant sample and prior care experience undertaken.

5.1. Impact of participant attrition

Pilot participant attrition through the longitudinal interview time points may have influenced conclusions as to the longitudinal impact of themes reported. It cannot be known whether those who participated at time point 1 only would have raised issues not identified by participants who participated at all three time points, or articulated different views, suggestive of a longitudinal impact where time-limited impacts are currently reported, or vice versa. Similarly, interview and focus group sample sizes were pragmatically determined (Braun and Clarke, 2021b) by the number of consenting participants, where larger interview and focus group sample sizes may have yielded different views, variations and issues.

Attrition through the longitudinal quantitative component of the study may have impacted the likelihood of statistical error in relation to outcome measures. Whilst 220 participants completed the initial demographic questionnaire, as identified in Table 2, not all of these participants completed the associated questionnaires at time point 1, indicating that participants may have experienced questionnaire fatigue. This observation similarly applies to questionnaires at other time points and may also account, at least in part, for attrition between time points. Significant participant attrition over time resulted in unequal sample sizes at the different time points. This differential in sample sizes limits the statistical analysis that can be conducted, and reduces the statistical power.

5.2. The nature of the pilot participant sample and prior care experience undertaken

Individuals who participated in longitudinal interviews were participants in the Health Education England pre-nursing pilot, which constitutes a particular model of prior care experience that is not reflective of prior care experience typically undertaken by student nurses ahead of training. This is noted as a contextual characteristic of this purposive sample, when considering transferability of findings. Findings of this research suggest that the 'special' nature of pilot prior care experience positively influenced aspects of compassion in a way that likely exceeds that which might be expected of a more 'standard' prior care experience. Participants also appeared heavily committed and loyal to the pilot, at times explicitly stating their desire to demonstrate positive outcomes. It is likely that longitudinal interview findings therefore reflect a 'best case scenario' in terms of impacts identified and conclusions drawn, which may not be transferable to prior care experience more broadly. These contextual characteristics however might be seen to strengthen research conclusions. Indeed, whilst focus group participants often identified similar benefits of prior care experience to pilot participants, they were discussed more tentatively and critically, with life experience and the nature of prior care experience featuring more heavily in their narratives. Whiffin et al. (2018, 2019) explored experiences of Health Education England pilot participants during, and at the end of, their prior care experience. Similar themes to those documented in this research can be identified and 'specialness' can also be gleaned within descriptions of their experience.

More broadly, as suggested by participants in this research, it is likely that the nature of prior care experience is influential in determining its impact. Prior care experience encompasses a vast number of potential variables (length, setting, role, shift pattern, paid, unpaid, formal, informal, for example) and it would seem feasible to suggest that the overall quality of prior care experience also influences the impact that it has. Participants in this research overwhelmingly reported experiencing prior care experience that was generally of good quality, therefore the impact of poor-quality prior care experience could not be determined. Such positive experience may not reflect prior care experience more broadly and due to the inherent heterogeneity associated with the nature of prior care experience, it should not be assumed that it yields uniform impacts. Further, due to the disparate nature of the nursing role, it would seem unlikely that any particular 'prior care experience' holds the capacity ontologically to provide insight into 'the' singular 'reality' of nursing.

6. Conclusions

This longitudinal mixed methods research aimed to explore the impact of paid prior care experience on the values and behaviours of pre-registration nursing students indicated as characterising compassionate care. Qualitative findings suggest that prior care experience has both positive and negative effects on students' compassionate values and behaviours. Positive effects do not appear to extend longitudinally to qualification however, and are tempered by and should be balanced against, negative impacts identified. No statistically significant differences in any of the quantitative outcome measures used as proxies of compassionate values and behaviours were found between participants with and without paid prior care experience. The findings of this research are therefore consistent in suggesting that there is insufficient evidence of longitudinal beneficial impact to recommend paid care experience prior to entry into nurse training as an effective intervention to foster nursing students' compassionate values and behaviours. These findings do not therefore support mandating a period of paid care experience as a prerequisite for entry into nurse education.

More broadly, an increase in compassion fatigue was identified in both groups of participants post-qualification, likely as a result of encountering the challenges of contemporary nursing practice. Paid care experience did not therefore serve to protect against experiencing reality shock initially on qualification as a Registered Nurse. An increased focus on developing a critical understanding of nursing in contemporary healthcare contexts, together with strategies to support resilience and empowerment amongst nurses, may contribute to the prevention of compassion fatigue, in turn promoting high-quality, compassionate care and nursing workforce retention.

Supplementary data to this article can be found online at https://doi.org/10.1016/j.ijnurstu.2024.104732.

Funding

This study/project is funded by the National Institute for Health Research (NIHR) [Policy Research Programme (PR-R9-0114-12005)]. The views expressed are those of the author(s) and not necessarily those of the NIHR or the Department of Health and Social Care. The funders did not play a role in study design, data collection, analysis, or interpretation, in the writing of this paper or in the decision to submit for publication.

CRediT authorship contribution statement

Sarah Elizabeth Field-Richards: Writing – review & editing, Writing – original draft, Supervision, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization. **Aimee Aubeeluck:** Writing – review & editing, Writing – original draft, Methodology, Formal analysis, Data curation. **Patrick Callaghan:** Writing – review & editing, Supervision, Methodology, Investigation, Funding acquisition, Conceptualization. **Philip Keeley:** Writing – review & editing, Supervision, Methodology, Investigation, Funding acquisition, Conceptualization. **Sarah Anne Redsell:** Writing – review & editing, Supervision, Methodology, Investigation, Funding acquisition, Conceptualization. **Helen Spiby:** Writing – review & editing, Supervision, Methodology, Funding acquisition, Conceptualization. **Gemma Stacey:** Conceptualization, Methodology, Supervision, Writing – review & editing. **Joanne S. Lymn:** Writing – review & editing, Writing – original draft, Supervision, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization.

Data availability

Data not available/data is confidential. Research participants were assured that raw data would remain confidential and would not be shared.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgments

The authors would like to thank Snigdha Dutta for her assistance with quantitative data analysis, and all participants for their contributions to the research.

References

Aljarboa, B.E., Pasay An, E., Dator, W.L.T., Alshammari, S.A., Mostoles Jr., R., Uy, M.M., Alrashidi, N., Alreshidi, M.S., Mina, E., Gonzales, A., 2022. Resilience and emotional intelligence of staff nurses during the COVID-19 pandemic. Healthcare (Basel) 10 (11), 2120.

Blomberg, K., Griffiths, P., Wengström, Y., May, C., Bridges, J., 2016. Interventions for compassionate nursing care: a systematic review. Int. J. Nurs. Stud. 62, 137–155.

Bond, C., Stacey, G., Field-Richards, S., Callaghan, P., Keeley, P., Lymn, J., Redsell, S., Spiby, H., 2018. The concept of compassion within UK media-generated discourse: a corpus-informed analysis. J. Clin. Nurs. 27 (15–16), 3081–3090.

Braun, V., Clarke, V., 2006. Using thematic analysis in psychology. Qual. Res. Psychol. 3 (2), 77–101.

Braun, V., Clarke, V., 2013. Successful Qualitative Research: A Practical Guide for Beginners. Sage, London.

Braun, V., Clarke, V., 2021a. One size fits all? What counts as quality practice in (reflexive) thematic analysis? Qual. Res. Psychol. 18 (3), 328–352.

Braun, V., Clarke, V., 2021b. To saturate or not to saturate? Questioning data saturation as a useful concept for thematic analysis and sample-size rationales. Qual. Res. Sport Exerc. Health 13 (2), 201–216.

Braun, V., Clarke, V., 2023. Toward good practice in thematic analysis: avoiding common problems and be(com)ing a *knowing* researcher. Int. J. Transgender Health 24 (1), 1–6.

Brennan, G., McSherry, R., 2007. Exploring the transition and professional socialisation from health care assistant to student nurse. Nurse Educ. Pract. 7, 206–214.

Brito-Pons, G., Librada-Flores, S., 2018. Compassion in palliative care: a review. Curr. Opin. Support. Palliat. Care 12 (4), 472–479.

Bruce, M., Omne-Ponten, M., Gustavsson, P.J., 2010. Active and emotional student engagement: a nationwide, prospective, longitudinal study of Swedish nursing students. Int. J. Nurs. Educ. Scholarsh. 7 (14).

Cleary, M., Visentin, D., West, S., Lopez, V., Kornhaber, R., 2018. Promoting emotional intelligence and resilience in undergraduate nursing students: an integrative review. Nurse Educ. Today 68, 112–120.

Council of Deans of Health, 2013. Healthcare assistant experience for pre-registration nursing students in England. Council of Deans of Health working paper. Available at http://www.councilofdeans.org.uk/wp-content/uploads/2013/12/HCA-Pre-reg-experience-Council-of-Deans-working-paper-final-20130501.pdf. (Accessed 29 October 2021).

Davidson, J.R.T., Connor, K.M., 2014. Connor-Davidson Resilience Scale Manual. Unpublished Personal communication from the authors.

Denzin, N.K., 1978. The Research Act: A Theoretical Introduction to Sociological Methods. Praeger, New York.

Department of Health, 2012. Compassion in practice. Nursing, midwifery and care staff. Our vision and strategy. Available at https://www.england.nhs.uk/wp-content/uploads/2012/12/compassion-in-practice.pdf. (Accessed 8 August 2023).

Department of Health, 2013a. Delivering high quality, effective, compassionate care: developing the right people with the right skills and right values. A mandate from the Government to Health Education England. Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/203332/29257_2900971_Delivering_Accessible.pdf. (Accessed 8 August 2023).

Department of Health, 2013b. Patients first and foremost. The initial government response to the report of the Mid Staffordshire NHS Foundation Trust public inquiry. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/170701/Patients_First_and_Foremost.pdf. (Accessed 8 August 2023).

Duchscher, J.E.B., 2009. Transition shock: the initial stage of role adaptation for newly graduated registered nurses. J. Adv. Nurs. 65, 1103–1113.

Everitt-Reynolds, A., Treacy, J., Murphy, E., Colwell, M., 2022. Compassion within an academic setting: experiences of student nurses. Nurse Educ. Today 109.

Fetters, D.M., Curry, L.A., Creswell, J.W., 2013. Achieving integration in mixed methods designs – principles and practices. Health Serv. Res. 48 (6 Pt 2), 2134–2156.

Field, A., 2009. Discovering Statistics Using SPSS. 3rd edition. London, Sage Publications Ltd.

Field-Richards, S.E., 2017. The Lived Reality And Meaning of Lean Thinking for Nurses and Nursing at an NHS Hospitals Trust. University of Nottingham Available at: https://eprints.nottingham.ac.uk/45825/1/Final%20thesis%20Sep%2017.pdf. (Accessed 9 February 2024) (Unpublished doctoral thesis).

Field-Richards, S.E., Aubeeluck, A., Callaghan, P., Keeley, P., Redsell, S.A., Spiby, H., Stacey, G., Lymn, J.S., 2023. The impact of care experience prior to commencing pre-registration nurse education and training: a scoping review. Nurse Educ. Today 120.

Flynn, M., Mercer, D., 2013. Is compassion possible in a market-led NHS? Nurs. Times 109 (7), 12–14.

Francis, R., 2013. Report of the Mid Staffordshire NHS Foundation Trust public inquiry. Volumes 1-3. Available at:Stationary Office London https://www.gov.uk/government/publications/report-of-the-mid-staffordshire-nhs-foundation-trust-public-inquiry. (Accessed 8 August 2023).

Frymier, A.B., Shulman, G., M., Houser, M., 1996. The development of a learner empowerment measure. Commun. Educ. 45, 181–199.

Gardner, D.L., 1991. Assessing career commitment. The role of staff development. J. Nurses Staff Dev. 7, 263–267.

Greene, J.C., Caracelli, V.J., Graham, W.F., 1989. Toward a conceptual framework for mixed-method evaluation designs. Educ. Eval. Policy Anal. 11, 255–274.

Hasson, F., McKenna, H.P., Keeney, S., 2013. A qualitative study exploring the impact of student nurses working part time as a health care assistant. Nurse Educ. Today 33, 873–879.

Health Education England, 2014. Pre-Nursing Experience Pilot: The Journey So Far. Health Education England, Leeds. http://hee.nhs.uk/wp-content/uploads/sites/321/2013/09/Interactive-Pre-nursing-experience-pilot-booklet.pdf. (Accessed 15 February 2015).

Hooper, E., Horton-Deutsch, S., 2023. Integrating compassion and theoretical premises of caring science into undergraduate health professions education. Creat. Nurs. 29 (1), 53–64.

Houghton, C.E., Casey, D., Shaw, D., Murphy, K., 2013. Students' experiences of implementing clinical skills in the real world of practice. J. Clin. Nurs. 22 (13–14), 1961–1969.

Jick, T.D., 1979. Mixing qualitative and quantitative methods: triangulation in action. Adm. Sci. Q. 24, 602–611.

Johnson, R.B., Onwuegbuzie, A.J., 2004. Mixed methods research: a research paradigm whose time has come. Educ. Res. 33 (7), 14–26.

Johnson, R.B., Onwuegbuzie, A.J., Turner, L.A., 2007. Toward a definition of mixed methods research. J. Mixed Methods Res. 1 (2), 112–133.

Kramer, M., 1974. Reality Shock: Why Nurses Leave Nursing. Mosby, St. Louis.

Kroll, T., Neri, M., 2009. Designs for mixed methods research. In: Andrew, S., Halcomb, E.J. (Eds.), Mixed Methods Research for Nursing and the Health Sciences. Blackwell Publishing, Hoboken, pp. 31–49.

Laschinger, H.K., Wong, C.A., Grau, A.L., 2013. Authentic leadership, empowerment and burnout: a comparison in new graduates and experienced nurses. J. Nurs. Manag. 21 (3), 541–552.

Lee, E., De Gagne, J.C., 2022. The impact of resilience on turnover among newly graduated nurses: a 1-year follow-up study. J. Nurs. Manag. 30 (5), 1295–1302.

Maben, J., Latter, S., Macleod Clark, J., 2006. The theory–practice gap: impact of professional-bureaucratic work conflict on newly-qualified nurses. J. Adv. Nurs. 55, 465–477.

Masso, M., Sim, J., Halcomb, E., Thompson, C., 2022. Practice readiness of new graduate nurses and factors influencing practice readiness: a scoping review of reviews. Int. J. Nurs. Stud. 129, 104208.

Melia, K.M., 1984. Student nurses' construction of occupational socialisation. Sociol. Health Illness 6, 132–151.

Murphy, F., Jones, S., Edwards, M., James, J., Mayer, A., 2009. The impact of nurse education on the caring behaviours of nursing students. Nurse Educ. Today 29, 254–264.

Nolte, A.G.W., Downing, C., Temane, A., Hastings-Tolsma, M., 2017. Compassion fatigue in nurses: a metasynthesis. J. Clin. Nurs. 26, 4364–4378.

O'Brien, F., Mooney, M., Glacken, M., 2008. Impressions of nursing before exposure to the field. J. Clin. Nurs. 17 (14), 1843–1850.

O'Cathain, A., Murphy, E., Nicholl, J., 2008. The quality of mixed methods studies in health services research. J. Health Serv. Res. Policy 13 (2), 92–98.

Onwuegbuzie, A.J., Johnson, R.B., 2006. The validity issue in mixed research. Res. Sch. 13 (1), 48–63.

Petrides, K.V., Furnham, A., 2006. The role of trait emotional intelligence in a gender-specific model of organizational variables. J. Appl. Soc. Psychol. 36, 552–569.
Rossman, G.B., Wilson, B.L., 1985. Numbers and words: combining quantitative and qualitative methods in a single large-scale evaluation study. Eval. Rev. 9, 627–643.
Royal College of Nursing, 2019. The UK nursing labour market review 2018. Available at: https://www.rcn.org.uk/professional-development/publications/pub-007397. (Accessed 9 February 2024).
Scammell, J., Tait, D., White, S., Tait, M., 2017. Challenging nurse student selection policy: using a lifeworld approach to explore the link between care experience and student values. Nurs. Open 4 (4), 218–229.
Schutte, N.S., Malouff, J.M., Hall, L.E., Haggerty, D.J., Cooper, J.T., Golden, C.J., Dornheim, L., 1998. Development and validation of a measure of emotional intelligence. Personal. Individ. Differ. 25, 167–177.
Sieber, S.D., 1973. The integration of fieldwork and survey methods. Am. J. Sociol. 73, 1335–1359.
Sinclair, S., Norris, M.J., McConnell, S.J., Chochinov, H.M., Hack, T.F., Hagen, N.A., McClement, S., Raffin Bouchal, S., 2016. Compassion: a scoping review of the healthcare literature. BMC Palliat. Care 15 (6).
Sinclair, S., Russell, L.B., Hack, T.F., Kondejewski, J., Sawatzky, R., 2017. Measuring compassion in healthcare: a comprehensive and critical review. Patient 10 (4), 389–405.
Skoglund, K., Holmström, I.K., Sundler, A.J., Hammar, L.M., 2018. Previous work experience and age do not affect final semester nursing student self-efficacy in communication skills. Nurse Educ. Today 68, 182–187.
Smith, M.E., Smith, M.J., 2020. Being treated with compassion by nursing students in their baccalaureate program. J. Prof. Nurs. 36 (5), 317–321.
Snowden, A., Stenhouse, R., Young, J., Carver, H., Carver, F., Brown, N., 2015. The relationship between emotional intelligence, previous caring experience and mindfulness in student nurses and midwives: a cross sectional analysis. Nurse Educ. Today 35 (1), 152–158.
Spence Laschinger, H.K., Leiter, M., Day, A., Gilin, D., 2009. Workplace empowerment, incivility, and burnout: impact on staff nurse recruitment and retention outcomes. J. Nurs. Manag. 17, 302–311.
Stacey, G., Hardy, P., 2011. Challenging the shock of reality through digital storytelling. Nurse Educ. Pract. 11, 159–164.
Stamm, B.H., Figely, C.R., 1996. Compassion satisfaction and fatigue test. Available at: https://proqol.org/. (Accessed 8 November 2023).
Stenhouse, R., Snowden, A., Young, J., Carver, F., Carver, H., Brown, N., 2016. Do emotional intelligence and previous caring experience influence student nurse performance? A comparative analysis. Nurse Educ. Today 43, 1–9.
Štiglic, G., Cilar, L., Novak, Ž., Vrbnjak, D., Stenhouse, R., Snowden, A., Pajnkihar, M., 2018. Emotional intelligence among nursing students: findings from a cross-sectional study. Nurse Educ. Today 66, 33–38.
Stombaugh, A., Judd, A., 2014. Does nursing assistant certification increase nursing student's confidence level of basic nursing care when entering a nursing program? J. Prof. Nurs. 30, 162–167.
Tabachnik, B.G., Fidell, L.S., 2006. Using Multivariate Statistics. 5th edition. Allyn & Bacon, Boston.
Tierney, S., Bivins, R., Seers, K., 2019. Compassion in nursing: solution or stereotype? Nurs. Inq. 26 (1), 1–6.
Traynor, M., 2017. Critical Resilience for Nurses. An Evidence-based Guide to Survival and Change in the Modern NHS. London, Routledge.
Wagner, J.I., Cummings, G., Smith, D.L., Olson, J., Anderson, L., Warren, S., 2010. The relationship between structural empowerment and psychological empowerment for nurses: a systematic review. J. Nurs. Manag. 18 (4), 448–462.
Whiffin, C.L., Baker, D., Henshaw, L., Nichols, J., Pyer, M., 2018. 'Am I a student or a Healthcare Assistant?' A qualitative evaluation of as programme of prenursing care experience. J. Adv. Nurs. 74, 2610–2621.
Whiffin, C.J., Baker, D., Henshaw, L., Nichols, J., Pyer, M., 2019. Pre-nursing care experience for maintaining interest and motivation in aspirant nurses. Nurs. Times 115 (11), 33–36.
World Health Organisation, 2020. WHO and partners call for urgent investment in nurses. Available at: https://www.who.int/news/item/07-04-2020-who-and-partners-call-for-urgent-investment-in-nurses. (Accessed 13 March 2023).