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Investigating the processes and influences involved in the transformational journeys of Registered Nurse Degree Apprentices: A realist informed qualitative study.

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Article Title

Investigating the processes and influences involved in the transformational journeys of Registered Nurse Degree Apprentices: A realist informed qualitative study.

Abstract**Aim**

This study aimed to investigate students' learning journeys across the duration of a new registered nurse degree apprenticeship programme, and to develop an understanding of the contextual factors, mechanisms and outcomes involved.

Background

Registered nurses are the largest group of healthcare workers globally, but shortages exist. To encourage existing UK healthcare employees into nursing, national investment was made into Registered Nurse Degree Apprenticeships. In 2018 a UK health service organisation and a university collaboration led to development of a nursing degree apprenticeship programme. Research into these novel undergraduate programmes in nursing is lacking, with scarce robust evidence or understanding of processes and experiences involved in such programmes.

Design and methods

An exploratory qualitative design informed by realistic evaluation was employed. Three sequential semi-structured interviews were conducted with an entire cohort (n=8) across the 18-month programme (24 interviews). Focused interviews were also undertaken with practice assessors (n=8) involved in the apprentices' journey. Initial thematic analysis was followed by application of Realist Evaluation principles and a temporal lens to move beyond qualitative description.

Results

Analysis identified four interrelated temporal themes, each comprising contextual factors, mechanisms and outcomes acting to inhibit or facilitate transition across the apprenticeship journey: (1) Starting out (*Latent Ambition, enhanced motivation and expectations*): programme availability and conditions enabled enactment of ambitions to become qualified nurses, preconceived assumptions regarding roles influenced expectations (2) Initial stages (*Identity dissonance, transition to academia, becoming a student nurse*) related to changing identity and re-conceptualisation of assistant role to student nurse, alongside transitioning into higher education. (3) Travelling through (*Being an apprentice, social capital, self-efficacy and confidence*) organisational social capital facilitated confident integration into placements, although over confidence could be risky. Academic struggles prompted some episodes of emotional dissonance. (4) Moving beyond to become registered nurses (*Confidence, empowerment and loyalty in the transition to becoming a registered nurse*) this phase saw apprentices transform, with revised understandings of nursing, increased empowerment, and self-efficacy. All expressed gratitude and loyalty for the apprenticeship opportunity, with all securing jobs in their employing organisation.

Conclusion

This study is one of the first of its kind, providing detailed insight into the processes experienced by students over the duration of a novel nursing degree apprentice programme.

Analysis identified several factors which could facilitate and inhibit progress in participants' 'learning journeys', mapping context, mechanism, outcome configurations which came into play at various stages. These were influential in successful completion of the programme by all apprentices, resulting in the development of confident, competent registered nurses.

To note that the terms apprentice and student are used interchangeably within this article.

Key words: Students, Nursing; Registered Nurses; Apprentice; Realistic evaluation, Clinical education; Self-efficacy

1. Introduction

Difficulties in recruiting and retaining nurses is a growing international issue (Attenborough et al, 2019; RCN, 2019; Lam, 2021). Concern has prompted initiatives to address shortages and provide opportunities for employer investment into existing healthcare staff and closer relationships with Higher Education Institutions (HEI) (Attenborough et al, 2019; The King's Fund, 2018). Registered nursing degree apprenticeships (RNDAs) are one such initiative, and in 2015 the UK government announced RNDAs as an alternative route into nursing to increase workforce numbers (Department of Health and Social Care, 2016). Subsequent UK funding was made available for employers to support RNDAs programmes (Health Education England, 2018, Baker, 2019). This heightened interest in apprenticeships developed in partnership with Higher Education Institutions (HEI's). In recent years, governments across Europe and from around the world, have invested considerable resources in improving apprenticeship provision, introducing and reforming apprenticeship to reach even more learners, both young people and, increasingly, adults (Cedefop, 2019).

Work-based learning routes and apprenticeship programmes are not new, existing globally across many sectors (Major, 2016). Apprenticeships focus on work-based development of the competence, knowledge, skills, and behaviours needed in an occupation and are often linked to professional recognition (Institute for Apprenticeships and Technical Education,

2022). Degree level apprenticeships are evolving rapidly as a means of combining service delivery and education, with the aim of meeting the needs of business and industry (Carter and Tubbs, 2017).

The Office for Students (OfS, 2019) proposes that apprenticeships have the potential to increase social mobility and diversity in higher education, creating alternative entry to professions whilst maintaining similar prestige as more traditional routes. However, for RNDA programmes, concerns continue to exist given the apprenticeship levy only funds the programme, with no salary for 'backfill' or time out for existing employees wishing to undertake apprenticeships (RCN, 2019, Baker, 2019). Such funding concerns coupled with the normal 4-year duration of nursing degree apprenticeships have impeded apprenticeship development in healthcare (Baker, 2019; Taylor and Flaherty, 2020). Given these constraints many healthcare organisations have chosen to recognise prior experience and learning, enabling shorter completion times.

Consequently, in response to workforce needs and as a way of developing existing healthcare staff, in 2018 a HEI in the North of England developed a registered nursing degree apprenticeship programme (RNDA) in partnership with one of the local NHS Foundation Trusts. The programme was approved for delivery in 18 months, rather than the standard two to four years, and was aligned with the Nursing and Midwifery Council (NMC) Standards for Pre-registration Nursing Education (2018) and the Registered Nurse Degree Apprenticeship (RNDA) Standards (Institute of Apprenticeships and Technical Education, 2017).

Eight apprentices were recruited from within the healthcare organisation onto the first cohort of the RNDA programme. Although not registered, all apprentices had significant advanced healthcare experience, and held a foundation degree in health and social care. Their prior certificated learning and experience was mapped to the standards of proficiencies for

registered nurses and module outcomes for the maximum of 50% (NMC 2018). A range of supported practice-based learning experiences were offered to apprentices based on their individual profiles. The use of a structured model of learning and supernumerary status was unique to this programme. The delivery model included a minimum of 20% off the job learning, away from the workplace, comprising allocated study time over two days with face-to-face teaching and self-directed study outlined in a structured programme plan.

While much commentary has been published in the UK and internationally regarding RNDAs (BJNS 2019, Rosser 2017) a developed evidence base is lacking, with degree apprenticeship research viewed as in its infancy and lacking scholarship (Nawas et al., 2022). Nursing related RNDA research is rare (Baker 2019, Cushen-Brewster et al 2022). Given the newness of this route into nursing it is important to develop a detailed understanding of how the RNDA functions as students journey through the process, and to identify factors that come together to inhibit or facilitate the apprentices passage through the programme.

1.1. *Aim*

This study aimed to investigate students' learning journeys across the duration of a new registered nurse degree apprenticeship programme, and to develop an understanding of the contextual factors, mechanisms and outcomes involved.

2. Methodology and design

This study used an exploratory qualitative mixed methods design (Flick, 2018) informed by realistic evaluation (RE) principles (Pawson, 2013). Underpinning the study is the notion that education is a complex, context-bound socio-cultural process, through which learning occurs, influenced by multiple factors, which shape the learners' experience and resulting outcomes (Steven et al., 2018, Wong et al., 2012). Therefore, use of simple linear models of causation (input = response) negate the complexity at play within the 'black box' of programme implementation (Racine et al., 2021, Steven et al., 2007). While RE studies may

vary in design, in its pure form it focuses on the a-priori development (often via literature review) and subsequent testing of proposed hypotheses in the form of context, mechanism and outcome (CMO) configurations, often referred to as 'programme theories' (Browne et al., 2021; Dalkin et al., 2015; Pawson, 2013). Such a deductive approach may risk forcing a-priori hypothesis and leave little room for development of participant driven, 'bottom-up' findings. To address such criticisms this study employed a qualitative exploratory design enabling a more inductive, 'bottom-up' (Racine et al., 2021) approach, with RE principles used as a lens to explore the data. Unlike much educational research which relies on 'snapshot', cross sectional data collection, this study paid attention to the notion of 'journeying' via sequential data collection across the programme lifespan.

2.1 Participants and data collection

All 8 nurse degree apprentices who had been employed in the same NHS Trust in the UK were invited to participate. All were over 25 years of age and had completed a Foundation Degree in Health and Social Care. All practice assessors (PA) supporting these apprentices in clinical placements were also invited to participate in acknowledgement of their involvement in, and influence on, the apprenticeship journey in practice. Data collection involved multiple individual semi-structured interviews with the apprentices and PA's all identified by a code and interview number (see Table 1).

Semi-structured interview guides (see Table 2 and Table 3) were used to enhance comparability of data, while allowing flexibility in scope and individual narratives to emerge (Roulston and Halpin 2022; Holloway and Wheeler, 2010). The interview guide was designed to explore CMO's, in alignment with realist evaluation principles. Sequential interviews enabled individual journeys to be tracked via rich descriptive 'snap shots', encompassing experiences, perceptions, and feelings, whilst also allowing consideration of the programme both retrospectively and prospectively (Roulston and Halpin, 2022). The

interview guides were successively adapted to include additional questions emerging from ongoing analysis (see Table 2). Each PA was interviewed in pairs, due to the challenge of accessing more than two at any one time in a focus group, where they were able to discuss, compare, and contrast their experiences of supporting the apprentices and their views of the RNDA (see Table 3), thus facilitating deeper consideration and reflection. All interviews were audio recorded, transcribed verbatim and anonymised with the use of an ID code.

2.2. Ethical considerations

Ethical approval was obtained from Northumbria University Ethics (Ref:12209). All Declaration of Helsinki ethical principles were followed. Ethical principles extend to publication of the results and consideration of any potential conflict of interest (Article 27). All potential participants were provided with detailed study information via email several days before being asked if they would like to participate. Email recruitment was used to create distance between potential participants and the study team, to mitigate any feelings of obligation or influence that in-person communication may have engendered. Furthermore, study information emphasised that: participation was voluntary; non-participation would have no impact on current or future education or employment. Emails were sent by a research team member with no direct teaching or practice contact with the apprentices. However, they were indirectly involved in the study and recognised the potential power differential with the participants due to their senior position in their respective organisations. This potential unequal balance of power could lead to what Bergen and LaBonte (2020) refers to as social desirability which was acknowledged as part of a reflexive approach used during the data collection process. All participants were treated fairly and respectfully and it was reiterated that they could withdraw at any time before each data collection episode, at which point consent was also renewed (BERA, 2018). It was made explicit to students and PA's that study participation was voluntary irrespective of whether their student or PA was involved or not. Confidentiality and anonymity were maintained by allocation of a unique identifier to each participant.

We acknowledge it is unusual for all members of a student cohort to volunteer independently to participate in a study. We suspect one reason all students volunteered may be in part a reflection of the feelings of gratitude for the sponsorship and backing received from their employers (see section 3.4).

2.3. Data analysis

Educational research exploring participants experiences employs 'qualitative description' via thematic analysis (Sandelowski, 2009). While useful in developing some insights, this approach tends to remain at a level of descriptive 'near-data interpretation' (Sandelowski, 2000, 2009). Pawson (2013) proposes simply exploring participant responses is insufficient, suggesting looking beyond the description to seek hidden and latent mechanisms influencing experiences and outcomes. Therefore, to move beyond simple description, analysis was undertaken in stages.

Firstly, initial thematic analysis (Saldaña, 2016) was undertaken by individual team members as initial transcripts became available (XX, XX,XX,XX). This stage developed an overview of the data and entailed: reading and re-reading transcripts, initial descriptive chunking, and annotation, developing emergent patterns and themes, and searching for connections across participants and data collection points. Meetings of all team members were held to discuss, debate, and agree the emerging themes, which were fed forward into the following analysis rounds and collated by XX.

After initial thematic analysis a second stage was undertaken by a team member with expertise in RE (XX), which entailed a temporal lens being applied and the use of RE principles to move beyond qualitative description to unpick and understand some of what worked, how and in what circumstances. This stage aimed to explore the learners' journeys, what worked for them (Outcomes), what influencing factors were at play (Mechanisms) and in which circumstances or contexts (Contexts). This helped mapping and teasing out of CMO configurations and causal pathways, informing the development of an explanatory model (see Figure 1) outlining CMO configurations across the timeframe.

2.4. Rigour

This research applied, Consolidated Criteria for Reporting Qualitative Studies (COREQ) guidelines (Tong et al., 2007). To enhance transferability, credibility and authenticity, detailed descriptions of the methodology are provided, along with direct quotes illustrating the findings. Prolonged engagement with the participants and the programme also assists credibility. The mixture of individual transcript analysis, staged analysis, and wider team meetings to discuss, challenge and agree findings enhanced confirmability (Seale, 1999).

3. Findings

The findings are structured as temporal themes across phases of the apprenticeship journeys comprising: starting out, initial stages, travelling through, moving beyond. Although these themes are sequential giving the impression of simple linearity, in reality the apprentices journeys were a complex interplay of internal and external factors (Contexts and Mechanisms) which interacted to produce a range of Outcomes culminating in the students gaining their degree and securing employment (as illustrated in Figures 1 and 2). Some outcomes appear temporary or transient (e.g. adopting student nurse identity), while others appear to evolve and function as both mechanisms and outcomes at different points (e.g. confidence, self –efficacy, ambition). A narrative overview with illustrative quotes and reference to CMOs follows. Quotes are labelled: apprentice (A) or practice assessor (PA) and interview point identified numerically. It is important to note that given the study focuses on the apprenticeship journeys an integrated analysis was undertaken with data from the apprentices predominating. However, some practice assessor (PA) quotes are used where appropriate to illuminate specific aspects regarding their involvement in, and influence on, the apprenticeship journey.

3.1. Starting out: Latent Ambition, enhanced motivation and expectations

The apprentices all came from a personal context of harbouring an ambition to move away from their previous health care role to that of a registered nurse. Realisation of this ambition

was enabled by the availability of the RNDA which acted as a mechanism to motivate and transform ambition into concrete intention:

“Doing the [previous] role was always part of my plan to be a nurse” (A2, Interview 1).

The RNDA offered the conditions (context and enabling mechanisms) which permitted the apprentices to enrol (Outcome) on a programme with circumstances they could ‘live with’. Many had worked for several years and had family commitments which, for them, made a traditional unpaid 3-year nursing programme incompatible with their life situation. Having this opportunity as an alternative route towards qualified, registered nursing was recognised and valued:

“Always wanted to be a nurse but after working for the Trust for 8 years and salaried it was going to be difficult.... I liked the look of this model [of nurse education] and to be paid to do it was perfect...” (A3, Interview 2).

However, the apprentices came to the RNDA with assumptions regarding the registered nurse role. At the outset, the key difference between the role (unregistered nursing assistant) previously held, and that of the registered nurse was perceived as mainly relating to medication administration:

“I did think the main change from the (previous)role to being a registered nurse would be the medication ...I did not think there would be much difference in roles really.” (A1, Interview 1).

These assumptions may have colored the apprentice’s expectations (mechanisms) encouraging them to exert agency and apply for the RNDA as they perceived the role differences as minimal. Figure 1 illustrates this pre-enrolment phase:

Figure 1: Starting out

The following themes cover the apprentice' journeys once enrolled on the RNDA as illustrated diagrammatically in Figure 2

Figure 2: RNDA journeys

3.2. Initial stages: Identity dissonance, transition to academia, becoming a student nurse

In the initial stages of the RNDA the apprentices moved from their previous role identity, in which they were an integral part of the established health care team, to that of 'being' a learner (temporary outcome). The change from team member to a registered nurse degree apprentice brought different expectations, remit, and lines of accountability and was not always easy, creating dissonance for the participants who had worked in healthcare for many years:

"It was frustrating at times at the beginning of a placement as I had lots of experience with venepuncture, I was watched by 7 members of staff before I was allowed to do this on my own" (A7, Interview 3).

With time they developed a greater understanding of their role and the associated restrictions and accepted their student identity:

"I can now see why sometimes my assessor would not allow me to do things I was competent at (previous role)... but once some of them had seen me do it and saw how good I was they then allowed me to do it" (A6, Interview 3).

Similarly, some of the PA's and students from other programmes were also initially cynical and unsure of the remit of the apprentice. This may have resulted in a reluctance to allow them to perform roles they had previously undertaken:

"At the beginning I had some reservations about them being able to complete the course in 18-months..." (PA2, Interview 1)

"Some students question how we can become a nurse in 18 months... but once I explained I had already done 11 years in practice...they did change and understood why this is the best route for us..." (A2, Interview 2).

Although these assumptions were soon dispelled and those supporting the apprentices appreciated their familiarity with clinical settings and ways of working, most of these apprentices initially struggled with the transition to academia, despite completing a Foundation degree prior to entry to this programme:

"I have been a bit overwhelmed by some of the academic work ...I was not expecting such a jump and it has been a challenge..." (A4, Interview 2).

While such struggles impinged to differing degrees on the self-efficacy of the apprentices, good time management, university support and peer group relationships helped them develop their academic skills and abilities. The apprenticeship programme structure was also perceived as offering a valuable mechanism facilitating linkages between theory and practice:

"Our tutors have been great. They're really supportive... [Having peer support] it's massive [help. It's just nice to have support]" (A2, Interview 1).

"The structure was just right, there were really good links from theory to practice ...this really helped us to see the relevance" (A1, Interview 1).

Although some participants felt their experience was not always taken into consideration:

“There was some repetition in the theory as academics were not always aware of our clinical backgrounds and experience” (A1, Interview 1).

As the participants moved through the initial stages of their journey they left behind their old ‘health care worker’ identity adopting and accepting their new identity as students, apprentices and learners.

3.3. Travelling through: Being an apprentice, social capital, self-efficacy and confidence

Once past the initial stages, they settled into ‘being’ an apprentice (temporal outcome) for the duration of the programme. Part of this new life was moving into, and between, a range of placement environments each with different teams, routines, cultures, and norms:

“It’s been an advantage, [having experience] because... you fit into the team very quick, you’ve got a good knowledge of what needs to be done...and you can quickly go and carry out those duties” (A7, Interview 3).

Being familiar with the health care organisation (NHS Trust) was advantageous both for the apprentices and PA’s. Coming to the placement with such an understanding of the organisational context (social capital) acted as a facilitatory mechanism, removing both the need for apprentices to learn about, or be taught about, the organisation:

“I think it definitely helped that they had health care experience and already work in the Trust as they know how the trust works, the way we do things, just them being familiar with the routines and values as a grounding to start” (PA7, Interview 4).

This range of experiential knowledge and understanding (mechanism) enabled the apprentices to integrate into the placement contexts smoothly, and quickly work autonomously. PA's also noted the confidence of these apprentices, how comfortable they were in the placement environment and with patients:

"I see these students very differently to the traditional 3-year students, they are autonomous, they have transferrable skills from their previous roles, life experience in general ... they just slotted in" (PA2, Interview 1).

However, 'slotting in' also necessitated learning how, and when, to use previous experience and confidence (mechanisms) when questioning practice as too much questioning could potentially result in unpopularity (inhibitory mechanism). They also showed an awareness of their limitations and reflected on their learning needs, requesting opportunities or instruction which facilitated the development of staff trust:

"We [apprentices] weren't afraid to ask and seek out what we wanted to know, ...there was no sort of like standing back and expecting someone to show us" (A8, Interview 3).

Such requests for instruction and learning opportunities also related to pharmacology, perhaps reflecting initial assumptions regarding medicines management being a main difference between qualified and unqualified staff, and the apprentice's growing recognition of their own learning needs:

"they wanted to know about drugs and pharmacology so that is what we focussed on a lot of the time initially. We looked at things like what drugs worked with what...they learn so quickly" (PA5, Interview 3)

Through the bespoke nature of the RNDA, the apprentices were also given some choice regarding placement allocations. This enabled both provision of a breadth of learning experiences across the programme (mechanisms), and attention to individual students' learning needs and aspirations:

“The placements were very much tailormade to us, we had some choice in where we went so this took into account gaps in our knowledge and where we saw ourselves in the future.... I really appreciated this” (A6, Interview 3).

They reported consistent positive feedback in the practical placement elements which reassured them and bolstered their confidence in things like decision making and time management:

“I began to know who I needed to see first and prioritise and I feel like because I've managed my time so well... I felt confident in my decisions...and I felt like the prioritization I was making was appropriate. And people picked up on this... (A4, Interview 3)

However, some of them continued to struggle with the theory, experiencing moments of deflation and self-doubt:

“When I'm out in practice I'm really motivated, and then it comes to Thursday [university day] and I feel like that's when my panic starts” (A4, Interview 2).

“Being on placement, I love it and that's where I belong, on a ward, the academic side is a struggle, but I will get there” (A6, Interview 2).

While the mismatch of the feedback and sense of achievement between the two elements seems to have prompted episodes of emotional dissonance and reduced self-efficacy, all the apprentices managed to move through this phase and complete the RNDA.

3.4. Moving beyond: Confidence, empowerment and loyalty in the transition to becoming a registered nurse

By final data collection, the apprentices had modified their understandings of the registered nurse's role and remit (outcome). Their revised understanding of the role along with the knowledge, skills and behaviours expected of them as an apprentice (mechanisms) underpinned a tangible sense of confidence in their transition into the role of registered nurse:

"I see the bigger picture now [having completed the RNDA], ... some people say, well it can't be that much different from an (previous role) to a staff nurse, but it is different, it's completely different in every way... I feel proud to be a staff nurse" (A3, Interview 3).

This sense of confidence and competence in the knowledge and skills gained (outcomes) were also reflected in PA comments regarding medication management which highlighted the apprentice's agency in seeking knowledge and learning opportunities:

"They actually had the knowledge of the medication, because they done a lot of work to learn them before or after drug rounds. One of the other nurses actually commented to say how good she was on the drug round and she just knew why the patient was on the drug and how it worked and was impressed with the knowledge..." (PA8, Interview 4)

This confidence in moving into role of a registered nurse was also strongly linked to the prior experience in healthcare (social capital) they brought to the RNDA:

“I feel like I’ve had this work experience behind me before [the RNDA] and I’ve just developed on that ... so, I don’t feel like a newly qualified nurse, but I am” (A3, Interview 3).

““They just had the confidence ...but you know if they were stuck, they would ask. At times they worked as a qualified nurse alongside us anyway, and I trusted them” (PA7, Interview 4).

At final data collection, reflecting on the RNDA journey the apprentices re-emphasised how the conditions put in place by the employing organisation (NHS Trust) and university partnership empowered them (mechanisms) to exert their own agency (mechanism) enabling them to enrol on the programme and to become registered nurses (outcome):

“I could never have done it over 3 years and having to pay fees, this was the only way I could have ever become a nurse...” (A1, Interview 3).

The sponsorship and backing received prompted a sense of gratitude and privilege:

“I will finish and show to those who believed in me and give me this chance that I will become a nurse and get a degree and will then help others and give something back to the Trust [employer], I owe it to them” (A7, Interview 2).

While some raised questions regarding workforce substitution for those undertaking this new route, others felt it would enhance staff retention:

“it is a win-win for them and us, growing our own...” (PA1, Interview 1).

“they know the nurse’s role, they are prepared so more likely to stay as some students just are not prepared for how hard it is and what the job is like...” (PA2, Interview 2)

These apprentices felt they belonged and were ‘believed in’ (mechanism) which enhanced their motivation and engendered loyalty and commitment towards their employer:

“I’m a massive advocate of apprenticeship route and I think if there was scope for more funding in the future to support more like me ...that would be a great opportunity to sort of develop the workforce and retain staff” (A5, Interview 3).

Loyalty towards the employers and ambition for the future was exemplified at final interview by all participants having secured jobs as registered nurses in their employing organisations (outcome).

4. Discussion

This first cohort of apprentices held ambitions (context) to become qualified nurses which motivated them, but without the RNDA programme, they would not otherwise have considered traditional non-funded routes into nursing. The programme offered the conditions (context and mechanisms) including paid salary, supernumerary status, and shorter overall programme timescale which enabled these healthcare employees to imagine, and work towards, a different future by enacting agency and securing a place on the programme (temporary outcome).

Agency can be seen as the capacity to imagine possibilities and take action, exert ‘will’, in light of the social, cultural and structural ‘enablements’ and constraints of a situation

(Emirbayer and Mische, 1998). Thus, to enact agency entails reflecting on potential future trajectories, taking inventive and/or deliberate action towards them through making decisions and at times being persistent in light of difficulties (Emirbayer and Mische, 1998; Bandura 2006; Stenalt and Lassesen, 2022). Over the course of the RNDA programme the apprentices moved through a range of socio-cultural, physical and emotional contexts which acted as mechanisms enabling and constraining the agency they enacted.

The journey to becoming a student nurse, whilst involving an initial act of agency in deciding to participate in the apprenticeship scheme, also incurred the shock of leaving familiar life-worlds (Giddens, 1991) and entering unfamiliar territories - which for these apprentices was academia and each new clinical placement. The apprentices had to deal with changing their remit and accepting a new student identity, which necessitated reconceptualization of their role and position (temporary outcome), fitting in to placements and the wider cultural context of nurse education, and transitioning into academic learning (mechanisms).

Gale and Parker (2014) conceptualise transition through the higher education system as a complex phenomenon. Bridges (2009) suggests people may focus on the change taking place, rather than conceptualising it as the first step of transition and letting go of the familiar. Learners experience identity dissonance and reconceptualization (mechanism and outcome), through engagement in the practices of the higher education community (Bridges 2009). Feelings of belonging are also significant in identity development (Liljedhal et al, 2016) and the apprentices felt attachment and 'belonging' to the NHS organisation which employed them. Such identity dissonance may be greater for learners such as the apprentices who remained within semi-familiar clinical settings (context) where they had developed strong existing identities.

On commencement of the RNDA programme, the apprentices appeared to be mourning a loss of self-identity (inhibitory mechanism) (Giddens, 1991) as their role changed to that of a student. Letting go physically, emotionally, and mentally of what once was, is an important first step in transition, similar to grieving any loss (Bridges 2009) and may provoke emotional

dissonance and reduced self-efficacy (temporary outcomes). Indeed, the apprentices identified initial frustration at finding themselves prohibited from undertaking what had previously been everyday duties they had been deemed competent in. These apprentices brought social capital (Xu and Stark, 2021), in terms of organisational knowledge, experience of many common activities, cultural understanding, relational networks, (facilitatory mechanisms), which helped them 'fit in' (temporary outcome) to placement areas and quickly become involved in the 'work' enhancing their self-efficacy and confidence (Bandura, 1997). However, over confidence in questioning could be risky and lead to unpopularity (inhibitory mechanism). Following experiences of working with the apprentices on placement (mechanism) their practice assessors viewed them as confident, proactive, and autonomous dispelling concerns and initial scepticism, and building trust (outcomes).

The academic components of the programme were more challenging and there were some who experienced episodes (temporary outcomes) of emotional dissonance, self-doubt, and reduced self-efficacy (Bandura, 1997), similar to traditional undergraduate students. However, these apprentices were all mature students entering the RNDA programme with alternative entry qualifications and recognition of prior experience. Furthermore, they appeared to have what Duckworth et al (2016) called 'grit', which is the perseverance, passion, and commitment to meet long term goals despite adversity. This facilitated the apprentices to reconceptualise their situation and show increasing responsibility for their learning education with a developing sense of ownership of their learning with confidence and growing self-efficacy (Porteous and Machin, 2018). Feedback and support were seen as a powerful tool in the development of their self-efficacy, confidence, and ambition (facilitatory mechanisms). Thus if academics want students to invest in and get the most out of their learning, it is vital they experience social connectedness within the clinical and classroom environments and feel sufficiently supported (Dunbar and Carter, 2017).

A registered nursing degree had not previously been seen as an option for these apprentices and this may have influenced their levels of self-confidence and efficacy and potentially increased the need for a sense of social connectedness. The gratitude (mechanism) felt for being supported was evident and appears to have increased the apprentice's loyalty and longer term ambitions(outcomes). Such belief and loyalty were also reflected when scepticism was encountered regarding the shortened programme, which the apprentices defended through explanations (mechanism) which in turn increased external understandings (outcomes).

The ethos of partnership and collaborative working that exists between the university and the employing NHS Trusts, can also be seen as an important backdrop (mechanism) - crucial for success of any apprenticeship programme (Taylor and Flaherty, 2020). The NHS Trust involved wished to invest in their current workforce and saw the potential of this programme for employees to earn as they learn, but also importantly retain these apprentices as registered nurses (HEE, 2018). This is linked to social mobility and workforce diversity, a key aim of apprenticeships, with clear benefits to organisations (Lester, 2020; OfS, 2019, Mcknight et al, 2019), such as the NHS where there are skill shortages, a need to enhance the workforce, improve career progression, and gain degree qualification without debt (Lester, 2020).

4.1. Limitations

The findings of this study are limited to the experiences and perceptions of 8 participants from one institution and 8 PA's from the same organisation and therefore cannot be generalisable in a quantitative sense to the wider population. However, many of the aspects identified (CMOs, e.g., ambition, organisational support, social capital, transitioning to registered nurse) are common to student nurse journeys and transcend national boundaries. Thus, the findings have some transferability and will have resonance for other HEIs and

practice contexts considering, or delivering, nurse degree apprenticeship programmes both nationally and internationally.

5. Conclusion

The aim of the study was to explore the experiences of degree nurse apprentices and consider what worked, how, for whom and in what circumstances during their apprenticeship journey. These apprentices were the first of their kind in the UK to complete their programme in 18 months and despite some challenges, their overall journey saw them transform. Given the newness of such programs this research adds important insights to a growing body of knowledge in this area.

Key to the success of this RNDA programme was the partnerships between HEI's and health care organisations, where there was an infrastructure that supported apprenticeship provision and investment in the workforce. McIntyre-Hite and Monaghan (2022) believe that degree apprenticeships need an infrastructure that supports social mobility for health care workers with relevant expertise and skills, coupled with a desire to promote professional advancement (McIntyre-Hite, and Monaghan, 2022).

This study was informed by realistic evaluation (RE) principles (Pawson, 2013) and what was evident, is that a whole series of both temporary and sustained Contextual factors, Mechanisms and Outcomes (CMO configurations) came into play during the participants' learning journeys. These CMOs acted as stepping stones and help explain the development of this group of confident, competent registered nurses. Research often ignores these temporary CMOs preferring to focus on final outcomes (e.g., degree award/registered nurse qualification). However, we would argue study of these intermediate CMOs offers extremely important insights into the hidden complexity of the reality of a RNDA programme. The CMOs identified may have relevance both for future UK apprenticeship courses and internationally, offering new areas and perspectives for educationalists and healthcare

organisations. To our knowledge this study is the first of its kind and given the newness of RNDAs and the scarcity of research in this area (Nawaz et al. 2022), hopefully provides the impetus for others to contribute to developing a comprehensive evidence base regarding degree apprenticeships as an alternative route into nursing.

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Figure 1: Starting out

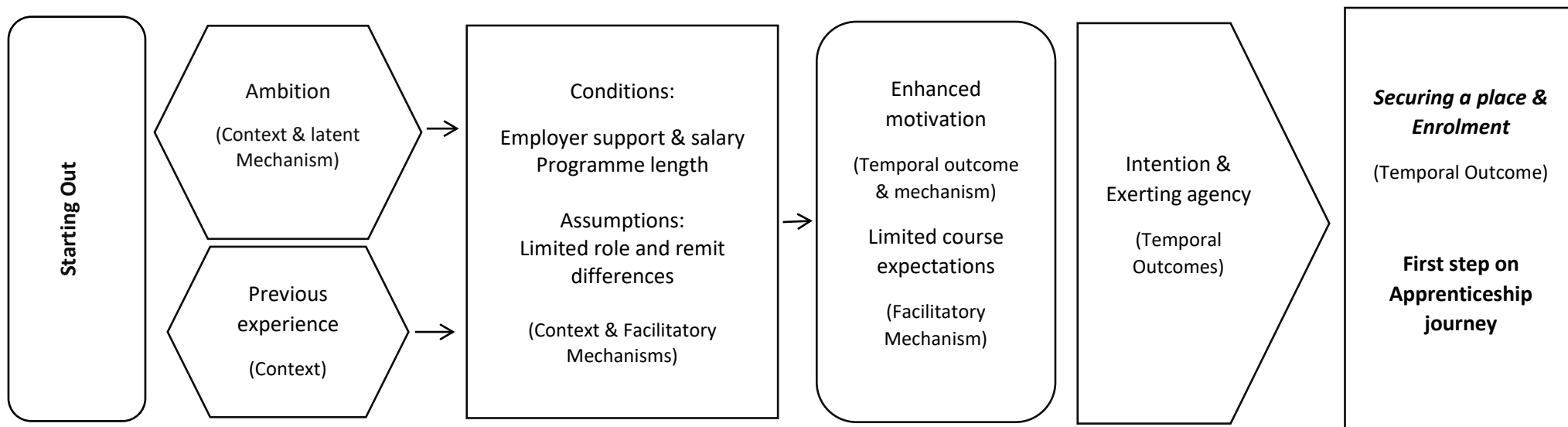


Figure 2: RNDA Journeys

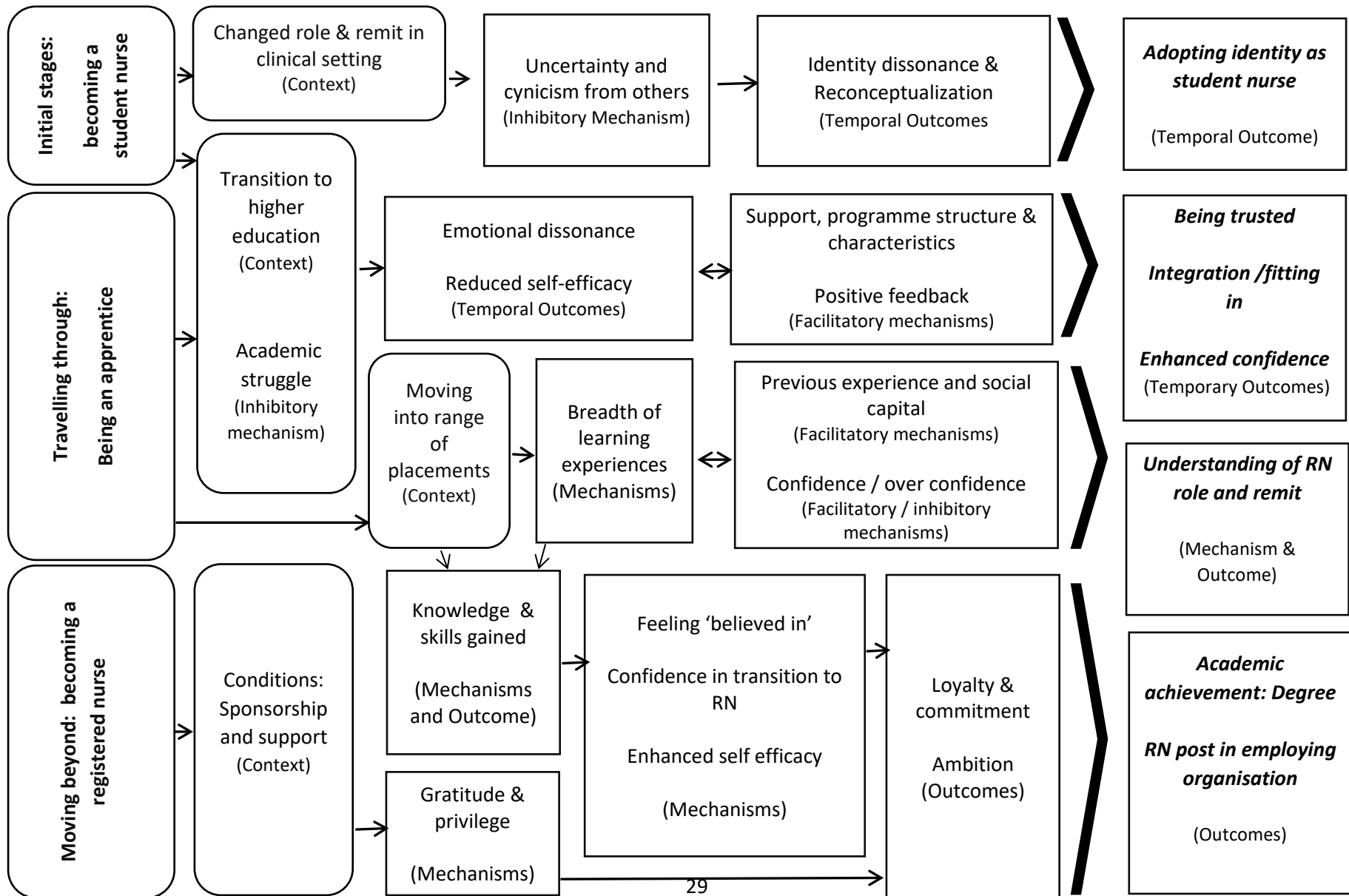


Table 1. Data collection types, episodes, and timing

Data collection episodes and timing	Individual Interviews: Apprentices (n=8)	Focused interviews: Practice Assessors (n =8)
April 2019 <i>(7 months into programme)</i>	x8 (A1-A8)	x2 (Interview 1 – PA1, PA2) Interview 2 – PA3, PA4)
November 2019 <i>(14 months into programme)</i>	x8 (A1-A8)	
May 2020 <i>(2 months after RNDA/qualifying)</i>	x8 (A1-A8)	x2 (Interview 3 –PA5, PA6) (Interview 4 – PA7, PA8)
Totals	24 interviews	4 focused interviews
Overall Total: 28 data collection points	<i>(3 interviews with each of the 8 apprentices)</i>	<i>2 PA's in each interview-different ones each time</i>

Table 2: Interview guide for apprentices

Interview 1	Interview 2 and 3
<ul style="list-style-type: none"> • Tell me a bit about yourself and what attracted you to the apprenticeship programme? • What were your expectations of the programme before you started? • What are your thoughts about the programme so far? • Tell me about some of your experiences so far both in theory and practice? • What do you think are some of the factors that have influenced your experiences? • Has there been any challenges during the programme so far? • What do you think of this programme as compared with traditional nurse education? • What do you feel about the apprenticeship programme as a way of becoming a nurse? • Any other thoughts or views you would like to add? 	<ul style="list-style-type: none"> • Tell me how the programme is going since we last interviewed you? • What do you think are some of the factors that have influenced your experiences so far? • How have you found being part of a small group? • What does an apprenticeship mean to you? • What do you think others think about apprentices? e.g other students, staff, patients? • Where do you see yourself in the future and why is that? • Any other thoughts or views you would like to add?

Table 3: Interview guide for practice assessors

- As a practice assessor can you tell us how you became involved in supporting a nurse degree apprentice?
- Can you tell us about your experience of supporting these apprentices in practice?
- Has there been any challenges supporting these apprentices?
- What do you think of this programme compared with traditional nurse education?
- What do you feel about the apprenticeship programme as a way of becoming a nurse?
- Any other thoughts or views you would like to add?