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An evaluative study on the impact of health and wellbeing strategies on preregistration health student retention: A scoping review of published literature.

A report for Health Education England (East of England), completed by Associate Professor
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TITLE: AN EVALUATIVE STUDY ON THE IMPACT OF HEALTH AND WELLBEING STRATEGIES ON PREREGISTRATION HEALTH STUDENT RETENTION: A SCOPING REVIEW OF THE PUBLISHED LITERATURE

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Executive Summary

A rapid scoping review of the literature was carried out throughout March 2023, to explore what evidence exists of the impact of support strategies on pre-registration student retention. Retention improvement is a key focus of the workforce plan across England. In the East of England, focus is on ensuring students remain on their course of study, and that effective strategies are being employed to retain these students once qualified and working within and across our Integrated Care Systems.

The scoping review identified 74 UK based published papers, however most studies considering student retention failed to effectively evaluate the impact of the intervention on retention. This is perhaps since retention is a multifactorial issue.

The literature does identify several important strategies to be recommended as having potential to enhance student retention, when taking into consideration their need for adequate support, and a sense of belonging (whether to their chosen Higher Education Institution, their placement institutions, and then also once joining as a qualified member of staff, into their employing organisation).

Key findings indicate that :

- Retention is a complex issue resulting from a variety of factors, requiring multiple initiatives to be delivered simultaneously to meet a range of needs.
- Retention is a dynamic concern, requiring ongoing monitoring for support to be the right thing, at the right time, in the right place.
- Retention strategies for student nurses needs to consider all aspects of support in terms of pastoral, academic and clinical support to meet the complex demands of the programme.
- Retention Models need to be redeveloped when considering retention, since inadequate consideration is given to placement experiences.

AN EVALUATIVE STUDY ON THE IMPACT OF HEALTH AND WELLBEING STRATEGIES ON PRE-REGISTRATION HEALTH STUDENT RETENTION: A SCOPING REVIEW

Background

Retention improvement has been a UK healthcare workforce priority for some time (NHS Improvement, 2019). Across the East of England, health and wellbeing is one of the biggest issues associated with learner attrition and identified as a key factor in staff retention, particularly for staff two years post qualifying. Specific to preregistration nursing students, previous studies have identified several reasons for attrition and dissatisfaction. Studies suggest student nurse attrition has specified aspects as due to, a lack of support, unmet expectations, and financial concerns (Health Education England, 2018). Furthermore, once qualified, nurses have reported feeling demoralised from a perceived lack of support and staff shortages (Senek et al., 2020).

Glogowska et al (2007), identified four 'pull factors' that keep students on track, and six 'push factors', that leads them to decide to leave their course of study. These are:

- Pull Factors: Determination, commitment to the profession, informal support, and formal support
- Push Factors: Challenges of academic work, burden of other demands, financial strain, lack of support, negative early experiences, illness, or injury

Although the study identified those students who decided to stay, faced similar experiences to those who withdrew, individual differences make situations tolerable for some and unbearable for others (Glogowska et al 2007). The difference being the extent to which a student feels they can resolve the challenges they encounter, exposing a 'tipping point' 'in their ability to tolerate circumstances (Hamshire 2017). Despite this knowledge, retention amongst health students remains problematic (Edge and Gladstone 2022).

The RePAIR (Reducing Pre-Registration Attrition and Improving Retention) project (Lovegrove, 2018), commenced in 2015 in response to the negative impact and financial cost of high levels of attrition across health-related programmes in the UK. A primary outcome was that all stakeholders influence the student experience, and that all need to do more in terms of a commitment to the student's 'journey' towards qualification and beyond. RePAIR also focused attention on enabling students to succeed, rather than on what made them fail or leave, and identified several avoidable reasons for why students left their course. Since the publication of the RePAIR report, several strategies have been

implemented to improve pre-registration health student retention, but little is known of the effectiveness of these initiatives (Edge and Gladstone 2022).

A case for change: Retention is a complex issue

Attrition in Nursing is complex and multi-faceted (Edge and Galdstone, 2022), with a range of factors thought to interplay to create such high levels of attrition seen in UK Nursing (Hamshire et al 2019). As far back as 2003, Last and Fulbrook found there were several issues identified as factors that result in student nurses leaving, having a culminative effect causing attrition.

A broad range of factors can impact student success, the most frequently cited as being:

- Personal issues (Hamshire et al 2019)
- Financial problems (Williamson et al 2013)
- Academic difficulties (Hamshire et al 2019)
- Placement related experiences (Chan et al 2019, Crombie et al 2013)

Yet it is more likely that a multitude of factors impact to cause a student to leave, rather than there being a single cause (Hamshire et al 2019).

Interestingly, despite considerable investment in actions to enhance student support, Hamshire et al (2017) found little evidence of any significant impact on student retention. However, contrary to this, many studies have revealed a positive impact in several factors on student nurse retention, such as *good academic support, pastoral support from family and peers and the provision of clinical support when in placement* (Cameron et al 2011, Williamson et al 2013). Gavine et al (2020) extend this in relation to retaining male student nurses as being equitable treatment, additional support, and having access to placements in clinical areas where men could minimise these challenges, all of which helped to reduce attrition.

Individual student's needs vary, and most utilise a range of support mechanisms, both in university, on placement and socially during their studies to maintain their motivation and juggle competing demands on their time (McKendry et al ,2014).

Student attrition (why students leave their course of study) is a dynamic and complex issue, yet many studies focus on one aspect of the problem, are small scale and context specific (Hamshire 2019). The success of a retention strategy hinges on its ability to address both academic and non-academic factors

in an efficient way. Yet the student of today is different to those of the past, and specific requirements of support and learning experience continues to evolve (Manyanga et al 2017).

Whilst many studies look at pastoral and academic support strategies, Crombie et al , (2013), assert that the practice placement mentors and clinical placements have the greatest impact on student retention, arguing that, to enhance retention, clinical support has to be improved. The NMC Standards for Student Supervision and Assessment (NMC, SSSA, 2018 a/b) have been implemented to address the expected level of support students need on placement, yet their impact on retention has not been evaluated, despite the claim that academic support and supervision is an essential ingredient for the successful completion of health professional related programmes of study (Gratrix and Barrett 2017).

The ability of a student to successfully complete their training is an interplay of several factors, as such, establishing a range of support mechanisms is suggested to be essential to reduce attrition (Chan et al 2019). Wray et al (2012 and 2017) identified that as student age increased, the likelihood of non-progression reduced, in other words, older students were more likely to progress than younger students; and, that domicile influences attrition, as in, those students who lived away from their local area were less likely to progress than those who lived locally.

Monitoring student achievement is also important since those performing less well academically tend to attend less (O'Donnell 2009). Much emphasis is given to monitoring student attendance and engagement, since attendance is a predictor of performance and completion equally. The relationship between engagement and withdrawal has also been established, for those students who disengage, tend to leave (O'Donnell, 2009).

A theoretical framework frequently used as a structure for examining attrition and retention is that of Vincent Tinto (2012) and was selected as the theoretical framework for the Repair Project. Student Retention Models broadly fall under one of two categories: 1) Student Attrition Models (SAM) and 2) Student Integration Model (SIM) (Manyanga et al 2017). The SAM approach proposes that students come to their chosen programmes of study, with beliefs that shape their attitudes to events, thus affecting their decision to leave. The SIM model proposes that the decision to leave or stay is influenced by academic factors (grades, roles, etc) and social integration (peers, friendships, etc).

Tintos Model of Institutional Departure (2012) asserts that attrition is a product of a student's lack of integration into the social and academic systems. Yet, although the model is often used (Aljohani 2016,

Edge and Gladstone 2022), within nursing it might be argued that Tinto's model is too simplistic, since the influence of external factors, such as those of practice education experience, is thought to play a large part in attrition (Boyd and McKendry 2012; Chan et al 2019) yet is not explicit in the model.

Student retention models are therefore primarily focused on traditional academic delivery (Aljohani 2016). For nursing students, integration extends university requirements for learning, and needs to adapt to a variety of clinical settings at an early stage of their course experience, thus adding to the challenges posed for students (Boyd and McKendry 2012). Where 50% of the training is based in clinical practice, a retention model needs to be reflective of this additional element, yet this is not being achieved currently (Cameron et al 2011, Crombie et al 2013).

Rationale

A scoping review of the published literature was chosen, because although systematic reviews are at the top of the evidence hierarchy, they are not suitable for every situation where there are confounding variables, and they are time consuming to conduct. The issues of evaluating pre-registration health students' retention studies were more appropriately addressed by a scoping review, due to exploration of the extent and nature of a body of literature and seeking to provide a summary that can then be used to inform future research, by identifying any evidence gaps (Micah et al 2021). Scoping reviews are especially useful where evidence is extensive and widely dispersed, where information is still emerging and not yet at a point of being able to provide a full summation of specific intervention, or cause and effectiveness (Micah et al 2021), as outlined in the background section above, as still being the case for pre-registration retention studies.

Objectives

Aim: To evaluate the impact of health and wellbeing strategies on pre-registration health student retention

Objective: To explore the impact of existing retention strategies, through evidence relating to health and wellbeing used for pre-registration health students' retention enhancement.

Methods

The scoping review used the framework developed by Arksey and O'Malley (2005) for scoping reviews and consisted of five stages:

- Stage 1: identifying the research question
- Stage 2: identifying relevant studies
- Stage 3: study selection
- Stage 4: charting the data
- Stage 5: collating, summarising, and reporting the results

Study selection

The process for selecting studies was to identify published systematic/ narrative reviews and primary studies on existing measures for enhancing support for pre-registration health students' retention enhancement.

Study eligibility criteria

Inclusion criteria:	Exclusion criteria:
<ol style="list-style-type: none"> 1. English language papers only 2. Studies developed to impact/ effect/ influence pre-registration retention/ attrition in relation to student support/ wellbeing 3. Studies that had evaluated the impact/ effect/ influence of retention/ attrition strategies for pre-registration students 4. 2013–2023-time frame to reflect contemporary HEI provision. 5. UK studies only to ensure transferability of findings to current NHS/ HEI experiences 	<ol style="list-style-type: none"> 1. Discussion or opinion pieces 2. Non-English papers 3. Studies that do not include focus on retention / attrition 4. Studies that do not focus on pre-registration students 5. Non-UK papers

Box 1: Inclusion and Exclusion Criteria

Information sources

The electronic data bases Medline, CINAHL, ERIC and PsycInfo were searched

Search

The search terms applied were:

Key Search terms:

- Retention or Attrition or Turnover or Intent or leave or Intent to stay
- Impact or Effect or Influence or Outcome or Result or Consequence
- Pre-registration
- Support

- Experience or Perception or Perceptions or Experience

Box 2: Key search terms

Context, Measures and Outcomes

The Context, Measures and Outcomes applied were:

Context: UK Studies Studies enhancing support Pre-registration students	Measures: Impact on retention	Outcomes: Changes in retention or attrition as determined by: Retention rates Attrition rates Experience Perception
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Box 3: Context, Measures, Outcomes.

Data collection

One researcher (RH) applied the inclusion and exclusion criteria to all papers retrieved (n=133 papers in total) from the searches. Each study title and abstract were then independently screened against the inclusion and exclusion criteria (n= 24). Copies of full articles were obtained for those studies with 'best fit' with the research question and when the relevance of the study was unclear from the abstract. Reference lists were searched, and further studies selected based on relevance.

The full text for 24 potentially eligible studies was obtained; each reviewer then independently appraised the full text article against the eligibility criteria. A list of all pertinent studies meeting these criteria was then constructed. The final decision the selection of papers for full data extraction was then made (n=7).

Refer to Appendix 1 which provides PRISMA details of the literature search.

Data extraction

Key items were charted by RH using a data extraction form developed for the scoping review. Data extracted from 7 papers were synthesised. Table 1 provides an overview of the data extraction results from these papers.



Synthesis results: To evaluate the impact of health and wellbeing strategies on pre-registration health student retention (March 2023)

Author/ Date	Title	Objective	Sample	Methods	Findings	Conclusion
Boath et al, 2016	Don't go with the 'FLO' – a student mobile texting service to enhance nursing student retention	To evaluate how use of automated mobile phone texts, using a system known as FLO, could usefully supplement pastoral support, as an intervention to reduce attrition among undergraduate nursing students	178 students	Questionnaire	Key themes were text messages were helpful and supportive, increased a sense of belonging to the University and encouraged retention.	It is concluded that FLO or use of similar mobile phone protocols can be a useful addition to approaches to improve undergraduate nursing student retention rates. ©
Currie et al, 2014	Developing a national computerised absence monitoring and management system to reduce nursing student attrition: Evaluation of staff and student perspectives Computerised Absence Management and Monitoring System (CAMMS)	To explore the perceived impact of CAMMS on student support and attrition, from the perspectives of academic and administrative staff and students	83 students; 20 academic staff; and 3 lead administrators.	On-line cohort survey of academic staff and students; structured interviews with lead administrators	A spectrum of negative and positive views of CAMMS. Students who are attending regularly seem pleased that their commitment was recognised. Lecturers reported greater difficulty getting to know students individually and acknowledge the benefit of identifying potential attendance concerns at an early stage. Some students who received a 'warning' letter were frequently irritated, rather than feeling supported. Increased staff workload resulted in negative perceptions and a consequent reluctance to use CAMMS.	CAMMS has the potential to identify 'at-risk' students at an early stage; however, the system should have flexibility to tailor automatically generated letters in response to individual circumstances, to avoid student frustration. Further research on the longer-term impact of CAMMS on attrition rates is warranted.

					However, students who were causing concern reported subsequent improvement in attendance	
Gerrard & Billington, 2014	The perceived benefits of belonging to an extracurricular group within a pre-registration nursing course	Nursing students were aligned to different extra-curricular groups- however, the extracurricular groups were not compulsory	12 students	Focus Groups	Students who were members of extra-curricular groups perceive group membership to have many positive benefits. The three main themes were: employability, retention, and personal gain.	Students were able to develop skills around employability, gained support and built friendships – which they felt enabled them to complete the programme.
Gratrix and Barrett, 2017	Desperately seeking consistency: Student nurses' experiences and expectations of academic supervision	To explore students' experiences and expectations of academic supervision as part of an undergraduate programme of nurse education.	800 students received supervision	8 students in a focus group	Three themes were identified: relationship with supervisor, variation between supervisors, and the link between supervision and marking. Overall, students identified frustration with variability in the provision of academic supervision	Effective academic supervision depends on a strong relationship between student and supervisor ; there needs to be a consistent approach to supervision, in terms of both the amount and content of feedback. Students identify a clear link between effective supervision and academic achievement. There was no other evidence of impact on retention
McKendry et al, 2014	Why here and why stay? Students' voices on the retention strategies of a widening participation university	The study aimed to explore student motivations, experiences, and support requirements during their first year to determine the efficacy of institutional retention initiatives.	46 nursing and midwifery students	Focus groups	Students utilise a range of support mechanisms before and during their studies to maintain their motivation and to juggle demands on their time. These include university staff, fellow students, friends, and family and those they currently known within the profession.	Expectations play a significant role in student satisfaction, suggesting that institutions should ensure prospective students have a realistic understanding of what a nursing/midwifery programme will entail. Nurturing a sense of

						belonging to both the university and profession appears beneficial in promoting retention.
Ooms et al, 2013	Providing learning support to nursing students: A study of two universities	to identify all existing student support mechanisms across two universities, to measure the perceptions of students of the use and usefulness of the support mechanisms provided by their university.	812 first- and third-year students	Questionnaires	Support services that appear to have the greatest impact on student success in their nursing programme are the programme leaders/module teachers, small study skills groups and, for the 50% of students who required it, academic literacy, and numeracy support sessions.	Provision of good student support is important to retain students and enable them to succeed. Robust evaluation of support service provision is essential to ensure that the right services are being provided to the right students at the right time.
Ryan and Davies, 2016	Development and evaluation of an online, interactive information and advice tool for pre-registration nursing students	The project explored the sources of, and support needs of nursing and allied health students, develop and evaluate and interactive online tool: 'SignpOST'	14, 3rd year students and 8 academic staff including personal tutors, programme/module leaders	Focus groups	Four key themes for support and advice: 1. Financial 2. Programme 3. Personal 4. Study/academic, found poor student knowledge and little clarity of responsibilities of academic staff and services leads to students sourcing support from the wrong place at the wrong time.	Students valued the speed and accessibility of information from informal, programme specific Facebook groups. Conversely, there were also concerns about the accuracy of these.

Table 1. Data Extraction results reporting studies evaluating support strategies on student retention



FINDINGS

- Of the 7 studies retrieved for full text review, the majority approached the evaluation of support strategies on retention from the perspective of student experience.
- These were recent studies, published between 2013 - 2023 and only originating from the UK, to maximise specific relevance to the NHS and clinical placement context for health students .
- The types of outcomes measured were commonly identified as experiences and perceptions, rather than specific retention rates.
- Studies frequently comprised of student nurses and midwives as sample population
- Support interventions ranged from pastoral and academic to attendance monitoring

Issues emerging for further consideration:

- These studies serve as a reminder of the importance of including multiple perspectives, particularly those of student perspective of pastoral, clinical and academic support initiatives
- Although the impact on retention because of support is challenging to measure the studies identified in the scoping review effectively demonstrated positive effects on experience - although this was often measured via self-reported assessment.

Summary of Key Findings

Few UK studies were identified in the scoping review that effectively evaluate the impact of support strategies for promoting student learners' health and wellbeing.

The scoping review did not identify a validated method of measuring the impact of support on retention, consistent with the findings of other studies that highlight most retention initiatives are not well evaluated (Rodgers et al 2013). It is essential that robust evaluation of support service provision is conducted to ensure the right service is provided to the right students at the right time (Ooms, et al 2014).

- Recommendation 1: There is a need for a coordinated approach to the evaluation of retention strategies, to develop a robust evidence base.

Based on the findings of this scoping review we found no validated method available for assessing objectively the impact of support strategies on retention. Retention and attrition in pre-registration

healthcare education programmes are multifaceted therefore, evaluation of its effectiveness on retention should embrace these complexities.

Interviews are used to recruit students onto health programmes, yet there is no evidence base that they have predictive validity despite scales and scoring systems that are again, largely unvalidated (Rodgers et al 2013).

- Recommendation 2: Consensus remains that retention strategies need to focus on multiple factors (Wray et al 2017).

Expectations play a significant role in student satisfaction and retention.

- Recommendation 3: Higher Education Institutions (HEIs) and indeed all employing organisations therefore need to provide realistic expectations of the programme prior to recruitment (McKendry et al 2014).

Effective retention initiatives need to constantly scan the student experience, understand student need, allocate resources efficiently; engage, interact, and feedback to students in prompt fashion and they need to be adaptive (Manyanga 2017). In seeking to understand retention, the students voice is essential since it is their lived experience of higher education that leads to the decision to leave (Williamson et al 2013). As such, student lived experiences need to be sought when exploring retention and attrition (Glogowska et al 2007)

- Recommendation 4: Recruitment that target local, older/mature students, with a broader range of life experiences could be seen as a process of positively influencing retention rates (Wray et al 2017), and as a local recruitment strategy for maximising future workforce pipeline and help to support retention on their chosen professional career.

Key findings

- There are few UK studies, and this should be considered when interpreting findings.
- Our review did not identify a specific validated method for measuring impact of support on retention support strategies .
- Retention support interventions are multifaceted.
- A combination of support strategies seems to provide a better picture of the overall impact of pre-registration retention

Tinto's model of Institutional Departure is no longer suitable when considering nursing attrition, since the practice environment, and integration is not considered.

Student support mechanisms need to be multi-level (Wray et al 2017, Currie et al 2014).

Support is required for students to successfully complete their programme, the extent to which it is needed is individual but as a strategy, all should have access to academic, pastoral, and clinical support (Currie et al 2014).

Therefore, we look at different aspects of support within the next section of our key findings and recommendations.

Recommended strategies for addressing a multi-factorial approach to student support:

a) Clinical Support:

- Partnerships between placement and HEIs need to be strengthened to ensure clinical support is optimal (Williamson et al 2013).
- Clinical staff need to be actively supportive and welcoming (Williamson et al 2013).
- Buddying students is perceived as a supportive strategy for clinical placement (placing a senior student with a junior) (Williamson et al 2013, Campbell 2015).
- The NMC Standards for student supervision and assessment (2019) need to be evaluated in terms of their impact on retention

b) Pastoral support:

- Pastoral support needs to consider a wide range of supporting activities, enhancing a sense of belonging (Williamson et al, 2013)

- Pastoral support must be readily available to students and foster a sense of belonging to the HEI to retain students (Currie et al, 2014; Williamson et al, 2013).
- Developing extra-curricular groups is one such support strategy that can enhance peer to peer support, friendships, and a sense of belonging (Gerrard and Billington 2014).
- Strategies that enhance a raised sense of vocation need to be explored more, although intrinsic for some, might be enhanced in others, since a low sense of vocation is associated with attrition (Williamson et al 2013).
- Enhancing students' sense of belonging to both the university and profession can promote retention (McKendry et al 2014).
- Text messaging via a mobile texting service, can be a helpful strategy to support students and possibly used to enhance retention since it works to enhance a sense of belonging to the university, and offers a personal/individualised connection (Boath et al 2016).

c) Academic support:

- Academic support needs to be available and easily accessible (Williamson et al 2013, Currie et al 2014).
- Optimal academic support would foster the creation of peer group support, where Peer Assisted learning Schemes (PALS) promote a sense of belonging (Williamson et al 2013)
- Academically, student should have opportunity to work in small groups – facilitating friendship, informal support and a greater sense of identity and belonging (Glogowska et al 2007, Williamson et al 2013, Gerrard and Billington 2014)
- Academic supervision can be an important strategy for programme completion (Gratrix and Barrett 2017) but must be consistent and is highly depended on the relationship between student and academic.
- Attendance and Engagement monitoring can identify 'at risk' students at an early stage, further research is required to demonstrate impact on attrition (Currie et al 2014)

CONCLUSION

From a scoping review of the published UK literature, during March 2023, we have found little evidence to identify what are the most effective strategies required to support students on health-related training programmes, to remain on course, (attrition) and continue onto having lengthy careers (retention).

Whilst it is recognised reasons for students and early career health professionals leaving their chosen career are multifactorial, there are some common, and basic recommendations that we have

identified to focus attention on engaging and empowering students to be well prepared for the stressors, and complex clinical contexts they will encounter during and after their programme of professional education.

Most common, is the need for individuals to gain a sense of belonging, to have a wide variety of supports readily available to them, and to maximise their sense of engagement with their HEI, and their placement organisation.

We recommend a robust evaluation is undertaken of regional retention strategies, so that the most cost effective, and highly transferable activities can be focused upon, to secure the future of our health care professionals workforce in the East of England. More therefore needs to be done to investigate what works, for whom and how, (including active projects that are yet unpublished), so that scalability can be achieved at pace, to avoid further workforce deficits, and offer people thriving careers in the East of England.

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APPENDIX 1: PRISMA flow diagram for a scoping review of UK retention strategies

