City Research Online

City St George's, University of London

Citation: Brook, J. & Kemp, C. (2021). Flexible rostering in nursing student clinical placements: A qualitative study of student and staff perceptions of the impact on learning and student experience.. Nurse Education in Practice, 54, 103096. doi: 10.1016/j.nepr.2021.103096

This is the accepted version of the paper.

This version of the publication may differ from the final published version. To cite this item please consult the publisher's version.

Permanent repository link: https://openaccess.city.ac.uk/id/eprint/26241/

Link to published version: https://doi.org/10.1016/j.nepr.2021.103096

Copyright and Reuse: Copyright and Moral Rights remain with the author(s) and/or copyright holders. Copies of full items can be used for personal research or study, educational, or not-for-profit purposes without prior permission or charge, unless otherwise indicated, provided that the authors, title and full bibliographic details are credited, a hyperlink and/or URL is given for the original metadata page and the content is not changed in any way. For full details of reuse please refer to City Research Online policy.

City Research Online: http://openaccess.city.ac.uk/ publications@citystgeorges.ac.uk

Title: FLEXIBLE ROSTERING IN NURSING STUDENT CLINICAL PLACEMENTS: A QUALITATIVE STUDY OF STUDENT AND STAFF PERCEPTIONS OF THE IMPACT ON LEARNING AND STUDENT EXPERIENCE

Corresponding Author:
Judy Brook[a] (Corresponding Author)
Judy.Brook@city.ac.uk
07786108993

Co-author:
Charlotte Kemp[a]
Charlotte.Kemp.5@city.ac.uk

[a]School of Health Sciences
City, University of London
Northampton Square
London
EC1V 0HB

Acknowledgements

We would like to acknowledge the generosity of all the participants who gave their time and shared their opinions during this study and the Barts Health Education Team who supported the implementation of flexible rostering. We are grateful to Barts Health NHS Trust for funding this project.

Funding

This project was funded by Barts Health NHS Trust.

Abstract

Aim/Objective: To explore whether a flexible rostering system for nursing students during their clinical placements enhanced their experience and contributed to a positive learning environment.

Background: In England, attrition from nursing programmes is an enduring issue, often related to student experience of clinical placements. Students juggle caring responsibilities, academic assessment, and additional part-time jobs to mitigate financial hardship, while

they are undertaking the clinical placement aspect of their courses. Flexible or self-rostering is a system that has been implemented with qualified practitioners in several NHS organisations and may present a solution to the need for flexibility in clinical placements for students.

Design: This was a qualitative pre-and post-intervention study

Method: A flexible rostering system was co-produced with nursing and midwifery students, and subsequently implemented in four in-patient areas in an inner-city NHS healthcare organisation between November 2019 and February 2020. Qualitative interview data were collected from participating students, and NHS staff from participating clinical areas, before and after implementation between October 2019 and February 2020.

Results: Three focus groups and one interview were undertaken pre-intervention, involving 13 students. Seven students and seven staff participated in a focus group or interviews post implementation. Findings indicated that the flexible rostering system gave students control over their work-life balance and enabled them to feel empowered in their clinical areas, less anxious and more focused on their development. Clinical staff reported unexpected benefits in terms of student attitude and attendance, allowing them to focus on teaching rather than dealing with concerns or changing the rota. Some staff felt there were challenges with implementation, which both students and staff agreed could be addressed by developing rostering guidelines.

Conclusion: The findings indicate that wider implementation of the flexible rostering system should be recommended to capitalise on the personal and contextual benefits.

Key Words

Student nurses; flexible rostering; self-scheduling; learning environment; clinical placements

Declaration of interest statement: No conflict of interest to declare.

Introduction

The COVID-19 pandemic has shone a spotlight on the need for a robust and resilient international nursing workforce. High turnover of nursing staff is prevalent in many countries, regardless of their economic or healthcare structures. In England specifically, there are an estimated 41,000 nursing vacancies (Buchan, et al., 2019). The situation is more acute in large cities such as London, where there is a higher than national average turnover of 12% (NHS Pay Review Body, 2017).

One potential solution to workforce deficits is to strengthen the supply of newly qualified nurses, however, a significant challenge to achieving this is the level of attrition from pre-registration nursing courses. In 2015, the Department of Health (DH) committed to reducing avoidable attrition from pre-registration nursing courses in England (DH, 2015), but in parallel implemented a government initiative to replace student bursaries with student loans. Unintended consequences of this change included a reduction in the number of applicants for pre-registration programmes (UCAS, 2018), and concern about the number of students leaving their course of study, which was in excess of 20% (Health Education England, 2015). In addition, more students were mitigating financial hardship by working in part-time roles as well as studying on pre-registration courses.

The reasons why students leave healthcare courses, not just in the UK but internationally, are complex, and may be linked to a range of individual, societal, professional and political factors. Decisions to leave a programme may be linked to students' experience in their clinical placements in particular (Chan, et al., 2019; Galvin, et al., 2015). A review of factors specifically associated with placement-related attrition (Eick, et al., 2012) identified that negative or positive perceptions of nursing were solidified as student nurses became socialised into the profession while in clinical placements. Perceptions of how they were supported during their placement, accepted into the workplace, and exposure to unpleasant experiences were particularly influential in decisions to leave the nursing programme.

Demographically, nursing students are more likely to leave if they are younger or are male (Eick, et al, 2012) and consequently, those progressing in courses may be older, have family responsibilities, have additional employment to their nursing programme, and may have additional financial pressures (Wray, et al., 2017; Wray, et al., 2012). Caring or family responsibilities have been linked to greater risk of academic failure (Dante, et al., 2011), which could result in increased stressors for students over the course of a programme (Edwards, et al., 2010). Generation Y and generation Z also seek more flexibility and work-life balance than previous generations (Jones, et al., 2015). With the competing demands of academic study, clinical placement attendance and family/home life responsibilities, consideration should be given to how this flexibility and balance can be achieved.

Background

Previous research indicates that students find clinical placements in pre-registration nursing programmes anxiety provoking (Labrague, et al., 2017; Moscaritolo, 2009; Deary, 2003) and this anxiety can have an effect on learning and performance. Financial pressures, particularly associated with clinical placements such as travel, or childcare, are significant for students (Lovegrove, 2018). These pressures are linked to not knowing well in advance where they would have their clinical placements or the shifts they would be working so they could make arrangements around caring or part-time work responsibilities. Although some anxiety can act as a motivator to succeed, if students are also carrying anxiety related to financial and home life responsibilities, these high levels may become debilitating and jeopardise student success, potentially leading to attrition from the programme.

Flexible or self-rostering is a system that has been implemented with qualified practitioners in several NHS organisations (NHS Employers, 2019) and may present a solution to the need for flexibility in clinical placements for students. Staff are empowered to take ownership of their working patterns to facilitate (where possible) the best work-life balance and quality of service (British Medical Association/NHS Employers, 2018). Examples of self-rostering models include: staff asked to sign up to work their choice of shifts during the week, ensuring each shift is fully staffed (Bailyn et al., 2007); using a software package that enables staff to input their preferences, after which shifts are allocated electronically

according to preference (Barrett and Holme, 2018; Nabe-Nielson, et al., 2012); and choosing shift allocation from a fixed, rotating schedule (Nabe-Nielson, et al., 2012). All reported self-rostering models for staff include consideration of optimum staff numbers and skill mix per shift to ensure safe patient care, and as such, include a minimum set of requirements (Koning, 2014). Whichever model is implemented, giving nurses a choice over their working patterns is likely to result in improvements in both their physical and mental health (Joyce, et al., 2010) and high levels of staff satisfaction with working hours. Previous examples have demonstrated benefits for staff and the organisation through increased staff wellbeing, increased motivation, and staff retention (Demeda, 2018; Young, et al., 2007). However, success is dependent on a transparent and agreed framework of principles to support self-rostering procedures. In addition, ward managers must be willing to delegate accountability to staff for arranging rotas (Royal College of Nursing, 2015). Although there is little published evidence of the use of flexible or self-rostering with pre-registration student nurses or midwives, the principles and outcomes of such mechanisms with registered nursing staff may be transferable to the student population, and will be of interest to those involved in delivering nursing education programmes internationally.

With student experience of clinical placements influencing future employment choices (Scanlon, 2018), there is a clear rationale for implementing rostering systems that enhance the student experience. This study aimed to collaboratively design, implement and evaluate a flexible rostering system for pre-registration nursing and midwifery students in four in-patient areas of an NHS healthcare organisation. The study was designed to answer the question, does flexible rostering for students during their clinical placements enhance student experience and contribute to a positive learning environment? The study was specifically conducted in order to make recommendations to providers of higher education nursing and midwifery programmes and clinical placement providers about the wider implementation of flexible rostering for students. In order to achieve that, views from a range of stakeholders were incorporated.

Method

Study setting

The study was conducted as a partnership between a large inner-city NHS healthcare organisation, and a university. The NHS organisation hosts around 480 pre-registration nursing and midwifery students from the partner university each year. The NHS Trust had a turnover of nurses at a rate of 19% per year and was keen to support initiatives that reduced attrition from the workforce. Prior to this study, the NHS Trust Education Academy received feedback that placement rostering caused significant anxiety for students, rosters being provided too late to support part-time work or childcare, or students commenting that the shift lengths made long journeys at either end of the day difficult.

Design

This was a qualitative study, involving focus groups and semi-structured interviews. Data were collected pre and post intervention. Following the pre-intervention focus groups, a flexible rostering system was designed and implemented as a pilot with nursing students across four clinical wards. Students were contacted by the Trust Education Facilitator prior to their placement start date and asked to indicate on an Excel spreadsheet the days they would like to attend their clinical placement for the first 4 weeks. Students were given an entirely free choice across the 7-day week, provided they met their allocated placement hours and did not work more than 40 hours in one week. They could also opt to work shorter or longer days depending on their commitments and preferences. After 4 weeks in placement they were then asked to choose their shifts for the remainder of their placement. Study design is illustrated in Figure 1.

Ethical Approval

Approval to undertake the study was granted by the university research ethics committee [ETH1920-0272]

Participants

Pre-registration nursing and midwifery students who had already undertaken placements in the NHS organisation during their pre-registration programme were invited to participate in the initial, exploratory phase of the study. Students from all stages of the nursing or midwifery Bachelors and Masters programmes were invited to participate.

Pre-registration nursing students who were undertaking their first clinical placement in the areas where the flexible rostering was implemented, and staff on the same wards, were invited to participate in the evaluation of the study.

Selection was via purposive sampling; participants received an email sent by either the course administrator or the educational coordinator at the partner NHS organisation, inviting them to take part. All participation was voluntary and informed consent was obtained prior to taking data.

Data collection

Data were collected between October 2019 and February 2020. Interviews and focus groups were undertaken by one of two experienced, female, researchers, who had no prior relationship with the participants. One researcher was an academic at the university where the students were studying and one was an independent researcher. Interviews and focus groups lasted up to one hour and were audio recorded and transcribed. Data were collected face to face either on the university site or the hospital site, or via telephone. Participants were familiar with the environment in which they were interviewed.

A flexible approach was taken to the semi-structured interviews to capture the participant views but initial questions were influenced by a priori evidence about flexible rostering from healthcare literature. Follow-up interview and focus group guides emerged from analysis of the initial data and the objectives of the study.

Seven students who participated in the pilot volunteered to take part in the evaluation. Those who chose not to participate did not provide reasons for declining the invitation.

Data Analysis

Data analysis was conducted following the six phases of thematic analysis (Braun and Clarke, 2006). Analysis was initially conducted independently by one researcher and then discussed and checked by the second researcher. Both researchers were immersed in the data, able to support analysis and mitigate any potential inconsistency or lack of coherence when developing themes. The process was supported by Nvivo V12 software.

Results

Initially, one individual interview and three focus groups consisting of seven, two and three students respectively were conducted. Eleven individual staff and student telephone interviews and one focus group of four students were conducted at follow-up. Participant detail for both the pre-intervention and post intervention stages is included in Table 1.

Pre-intervention interviews

Two themes emerged related to the nature of the current system and its impact on students: impact of the current rostering system, and the importance of consistency and good communication. Figure 2 illustrates the relationship between the themes.

Impact of the Existent Rostering System

Participants identified several challenges with the current rostering system, including impacts on their mental and physical wellbeing, on other work/life commitments, and on punctuality, absenteeism and retention. Challenges fulfilling expected hours, and financial considerations were also highlighted.

The current rostering system induced feelings of anxiety and loss of control. As one student said, "*I think, just right now I feel like I have no control in my life because it's so dependent on what other people have chosen for me." [Student focus group 1]* This was echoed by the majority of participants, and, together with feelings of uncertainty, were identified as inducing stress:

"I personally find the juggle very stressful, yeah, it's really stressful. I don't like uncertainty; I like knowing exactly what's going to happen and when." [Student focus group 3]

Students also identified a negative impact on their physical wellbeing, because they struggled to attend medical appointments. For example, one student described feeling anxious and nervous about trying to change their rota to attend medical appointments:

"I've got an appointment, a doctor appointment this month and I haven't been asked what day can, do I want to have off. So I, now I need to start communicating with people that I don't know, people that don't know me, requesting days off that have already been allocated to me and it's a bit, I feel bad because I'm asking for them to change what they've done." [Student focus group 1]

Many students had commitments beyond their nursing or midwifery programme placement and struggled to juggle other jobs, their children and family. Some expressed that they thought the system was inaccessible to single parents because it required wrap around childcare, which was *"out of the reach of most people" [Student focus group 3]*

This stress and effect on home life adversely affected punctuality, absenteeism and student retention, with some students saying that they *"will just cancel"* their shift if they have to fulfil important outside commitments. However, this strategy meant that students often didn't accrue enough hours of practice and this was a significant concern as they may have to extend their programme.

Students felt a more student-centred approach to rotas could mitigate decisions to leave the programme. The fact that students were now paying tuition fees as opposed to receiving bursaries made the rostering system particularly problematic.

"So I do think we deserve a little bit more control, since we're not paid to be there, we are meant to be supernumerary, and we are actually paying a lot of money to do this course and to be there. So I think it's a bit different than say three years ago, when there was a bursary." [Student focus group 1]

The importance of consistency and good communication

Issues relating to communication and consistency were highlighted: around shift allocation; rota amendment; grievances about their assigned rota; and variability between placement areas.

Communication in advance about the shifts that they had been allocated was seen as particularly important, with students describing occasions where they had only learned their shifts with two days' notice, which made it very difficult to plan and added to the general stress of the course:

"There's pressure already in nursing whilst you're doing it. It's a commitment though, but if you let us know things, what are going on or what is happening, you can plan in advance". [Student focus group 4]

Many said that they found it difficult to amend their shifts because two-way communication was challenging. Students described occasions where they hadn't heard back about their request or were required to request so far in advance that their plans were not yet made, reiterating that *"life happens as well"* and so plans need to change. This was particularly difficult when students did not know the staff: "*So I needed to go in advance, see them, change it. I think it was really stressful for me to go talk about my problem and issue and explain it to other person, and it's not really easy". [Student focus group 2]*

Participants felt they were not being understood or supported when they attempted to express how the rota was making them feel because there was an expectation in the nursing or midwifery professions that you just had to accept the working hours as part of the job. One student commented:

"They will say oh OK, well this is nursing, this is what you're expected to do. You come here, you have a patient, you have a ward and that's it, don't argue about it." [Student focus group 3]

Another challenge was variability of practice between placements, and their experience was dependent on preferences and attitudes of the ward managers and the individual preparing the roster:

"Our previous [Clinical Practice Facilitator] was just very understanding about, that we have lives as well...whereas with this new one, we have received emails basically saying we're adding too much to their workload." [Student focus group 1]

Even for students who had good experiences, this lack of consistency induced feelings of anxiety, uncertainty and worry about what their next placement would be like.

Post Intervention Interviews

Data collected from participants after they had taken part in the flexible rostering pilot reflected the positive impact of the flexible system**,** challenges with the flexible system**,** and scalability and feasibility. These themes and associated sub themes are discussed below.

Positive Impact of the Flexible System

Students described positive impacts on their wellbeing and their learning related to decreased anxiety and the ability to plan ahead. This was echoed by comments from the ward staff, who observed improvements in punctuality and attendance, and a more positive attitude from students in the ward areas.

Wellbeing

Students felt happier and more relaxed, which made the placement more enjoyable. They described tangible benefits, such as getting more sleep and being able to attend medical appointments that may previously have been difficult:

"*Yeah, it really makes the placement, it really makes it more comfortable and more enjoyable. So the flexibility gave me the opportunity to be able to plan ahead, so I go in there totally relaxed, I feel like I'm much more comfortable and I'm much more, everything is fine so when I get into placement I function very well, much more." [Student OL]*

Staff noticed this positive change to the students' demeanour, meaning staff had fewer complaints from students and felt they could better support them:

"*They seem happier because it suits their schedules, day to day routine, yeah, they seem happier as well and yeah, we can see that*." *[Staff MR]*

Students also implied that having such a flexible rostering system in place would be a significant attraction for them to apply to work in the organisation once qualified because it was seen as a benefit that other healthcare organisations didn't provide.

Learning

Participants described a positive impact of the flexible rostering system on the learning environment. Staff felt students were more focused and engaged because they weren't worrying about their rota. The system also gave students opportunities to access a diverse range of experience to enhance their learning:

"*Because the students will be more eager to learn, more concentrated because they're not thinking about, oh, I cannot do this shift, isn't it? So yeah, yeah, they're more engaged" [Staff MR]*

"*I was able to plan my time around when my practice assessor will be there, so I choose … to work with them, or if I need to do a particular speciality, … it makes the opportunity to be able to move around different areas, so it's very, very beneficial to me*." *[Student OL]*

Life outside of placement

Students discussed the positive impact of the flexible system on life outside of their placements, particularly around childcare. Both staff and students recognised that student demographics had shifted, attracting more mature students with families, dependent children and other responsibilities. Being able to work their shifts around commitments also had a positive impact on both absenteeism and punctuality as students were able to rearrange their shifts if their situation changed or they were ill:

"It helps them, yeah, with turning up. If you tell them to do the self-rostering, to come when they can, allow them to sort the shifts whenever they can't, at least they can achieve a better attendance than when you just have… like a rigid rota." [Staff ES]

"I think the project was very fantastic for me … I couldn't find any problem doing that because after I have selected the days that I wanted to work, and the ward agreed with that and I was able to attend all my placements….without missing even a single one." [Student JA]

As students could plan ahead, rota amendment requests decreased, which impacted on the workload of the staff and enabled them to feel they were supporting the students to a greater extent.

"It's worked well, less challenging, you don't have to spend time with the student on the ward reorganising, rearranging, or rewriting the rota, this has been done… there won't be complaints from the students." [Staff ES]

Challenges Associated with Flexible System

Although there was a lot of positivity about the flexible rostering system, there were also some challenges identified by students and staff. These related to the logistics of the process, linking students with supervisors in the ward areas and ensuring students were able to access appropriate learning opportunities.

Distribution of students

The main challenge was all students choosing to work on the same days, which impacted on their learning opportunities. However, all of the staff members said that these issues could be resolved by students collaborating and by putting guidelines in place, which some of the pilot areas had implemented already:

"It was pre planned, we had, we all met before we started the placement and then [placement facilitator] had to go with what clashes and what, so he kind of managed that well…They kind of spread the things in the week, which was really good." [Student focus group 1]

"*You just tell them that if there's like two, three students here you don't put your name there, you have to put your name somewhere else, that kind of thing. It's a bit more flexible." [Staff ES]*

However, one staff member felt this might cause problems when the students became qualified nurses by raising expectations:

"Maybe it will impact them maybe when they qualify when they can't get those flexible hours where they go because managers cannot always grant everyone's wishes. Because there maybe be like five, six people with childcare." [Staff ES]

Supervision

Some staff were concerned that the flexible rostering system precluded students spending time with a specific supervisor to allow adequate opportunities for assessment:

"That's what I think, that they have to follow the mentor's rota because of this, how they will learn if they are not going to be mentored properly." [Staff JG]

However, students quickly learned during their placement the best way to achieve their learning outcomes and adapted their rota to do this, "*it's being proactive about your learning, so yeah it's fine." [Student OL]*

"*The first four weeks that I was on the placement, I barely got anything [competency achievement] signed because I spent no time with them, the two people who were actually allocated to me. So even though every nurse can sign me off, they weren't as focused about doing it…So the last seven weeks of my placement have been 100% better because I spent more time with my nurses" [Student focus group 1]*

Ward managers' solutions included assigning students' multiple supervisors, or ensuring the students chose their rota well in advance to help with planning. Working with a variety of supervisors was seen as positive because it supported a broader assessment of student ability gained from a variety of feedback and perspectives.

There was an enthusiasm from staff as well as students to make the system work and many of the participants expressed they had no challenges at all with the flexible rostering system.

Scalability and Feasibility

All of the participants felt the flexible rostering system was scalable and feasible and would be beneficial for students and staff:

"*I'm sure it will work, people will be, mentors will be happier to have a pre-plan and flexible rota done and we have enough time to organise the mentors, allocate them a mentor I mean. And then all we want is a less stressful student coming for placement. It will work, definitely, yeah. It will, definitely. [Staff ES]*

"*I think on the bigger scale it's going to work because it gives the opportunity for you to be able to plan yourself and to be able to choose which is better for you, instead of being enforced that you have to this, so it is what you choose, so you tend to make it happen…so I think on a larger scale, like that it will be very effective as well." [Student OL]*

However, many thought there should be some guidelines around students choosing shifts in order to address the aforementioned challenges. These included guidelines to ensure that student attendance was "spread out" to maximise learning opportunities, guidelines about how to make amendments, and the need for students to be "sensible" with how they choose their shifts to prevent burnout, "*because otherwise they won't have anything to learn because if there's only one patient who needs help dressing then all five students cannot, all five, six students cannot do that dressing, isn't it?" [Staff ES].*

It was also clear that communication was key to a flexible rostering system working on a larger scale. Ward areas needed to be aware that the new system is being implemented and students needed to proactively communicate with their placement areas, which may not always have occurred during this early implementation.

Discussion

This study aimed to collaboratively design, implement and evaluate a flexible rostering system for nursing and midwifery students undertaking clinical placements as part of their pre-registration programmes. We particularly sought to understand whether flexible rostering enhanced student experience and contributed to a positive learning environment. The findings indicate that flexible rostering for students is feasible, when implemented with clear guidelines and good communication. There were unexpected benefits for the staff from using the system and students were empowered and able to proactively take responsibility for their own learning. In addition, the system had significant positive impacts on the physical and mental wellbeing of students.

In the UK, rostering of student nurses in clinical placements has historically been related to the Nursing and Midwifery Council (NMC) education standards. With the introduction of the NMC Standards for Student Supervision and Assessment (NMC, 2018), students can now productively spend time with a number of supervisors in one placement, rather than being rostered to work with one individual, making flexible rostering possible. In this context, students and staff in the implementation areas were exploring new ways of working and it is not surprising that both groups identified rostering guidelines as important. This is also consistent with nursing literature relating to self-rostering for qualified staff, in which guidelines around number of shifts worked consecutively, shifts swapped, and weekends worked are recommended (Richmond and Greenhill, 2003; BMA/NHS Employers, 2018).

Clear communication was also important to successful implementation. Strong leadership underpins strong communication, making the support of managers crucial to positively engage the clinical and education staff (Barrett and Holme, 2018). This may not always be possible and resistance to change is a potential challenge to wider implementation (Koning, 2014).

Staff in the pilot areas reported unexpected benefits related to their own workload. They received fewer requests to change or swap their shifts, fewer complaints, there was less

absenteeism and happier students, with a consequent reduction in the amount of time staff spent addressing these issues. When implemented with qualified staff, self-rostering results in fewer confrontations, enhanced cooperation and a more positive work environment (Niemchak et al., 2008; Bailyn, et al., 2007). This timesaving and increased efficiency is a strong rationale for investing in development of the rostering system for students.

One significant challenge discussed by students pre-implementation was lack of control over their placement experience. After implementation, they described the revolutionary nature of the flexible rostering and how this gave them back control over their work-life balance and their learning. As such, the flexible rostering system was a mechanism for student empowerment. Feeling empowered may have influenced the students' perceptions of autonomy (Mailloux, 2006) and self-efficacy (Pearson, 1998), with a direct impact on their ability to undertake activities that enhanced their learning. Reports from all stakeholders indicate that students were more focused and more relaxed and perceived this to relate directly to a more positive learning environment.

Student empowerment in clinical practice relates to being and feeling valued (Bradbury-Jones et al., 2010). During initial focus groups, students commented that consideration of flexible rostering system demonstrated organisational commitment to valuing them and changing the culture of control. Contributing to the design of the system added to the sense of being valued. The proactivity of the students to progress learning, indicated that commitment to empowering students was well-founded and potentially led to positive pedagogical outcomes.

Students identified they could plan shift patterns to maximise their physical health and mental wellbeing. These benefits are echoed in literature about flexible rostering for qualified staff, where flexibility was highly valued (Bailyn, et al., 2007; Koning, 2014). Conversely, failure to prioritise the needs of the ward or team above those of the individual can result in less continuity of care for patients, decreased cooperation with colleagues (Nabe-Nielson et al., 2012) and ultimately lack of efficiency in the clinical area (Bailyn, et al., 2007). To some extent this was reflected in our study, with some students choosing the same shifts and competing for learning opportunities. Reassuringly, staff felt this could

easily be resolved with the implementation of guidelines to support even distribution of students across shifts.

The mental health of higher education students is a recurrent concern, with national initiatives to support students during their university careers (Office for Students, 2020). For nursing students in particular, the burden of stress related to both clinical placements and academic competition, and the impact this can have on academic performance and psychological wellbeing is recognised (Li, et al., 2018; Labrague, et al., 2017; Jimenez, et al., 2010). When personal challenges associated with family or finances are added to this burden it is not surprising this results in mental ill-health and attrition from programmes and finding mechanisms to reduce the stressors during nursing programmes is crucial (Labrague, et al., 2017). The students indicated that their wellbeing was significantly enhanced by the flexible rostering system, which is a persuasive factor for expanding implementation.

Limitations

This was a small study and evaluation of wider implementation is advised. The small number of participants and localised nature of the study impacts on the transferability of the findings. However, the range of voices captured, the strength of their opinions, and the richness of the data, gives us confidence in our recommendations.

Conclusion

This study was designed to explore whether flexible rostering for students during their clinical placements enhanced student experience and contributed to a positive learning environment. This was undoubtedly the case, with unanimous opinion among student participants that the flexible rostering system gave them control over their work-life balance, enabled them to feel empowered in their clinical areas, less anxious and more focused on their development. Clinical staff reported unexpected benefits in terms of student attitude and attendance, allowing them to focus on teaching rather than dealing with complaints or changing the rota. Some staff felt that there were challenges with implementation, which both students and staff agreed could be addressed with the

development of guidelines. The findings indicate that wider implementation of the flexible rostering system should be recommended in order to capitalise on the personal and contextual benefits.

References

Bailyn L, Collins R, Song Y (2007) Self-scheduling for hospital nurses: an attempt and its difficulties. Journal of Nursing Management. doi: 10.1111/j.1365-2934.2006.00633.x

Barrett, R. and Holme, A. (2018) Self-rostering can improve work–life balance and staff retention in the NHS, British Journal of Nursing, 2018, Vol 27, No 5, PP264-265

Bradbury-Jones, C. , Irvine, F. and Sambrook, S. (2010) Empowerment of nursing students in clinical practice: spheres of influence. Journal of Advanced Nursing 66(9), 2061–2070. doi: 10.1111/j.1365-2648.2010.05351.x

Braun, V. and Clarke, V. (2006) Using thematic analysis in psychology. Qualitative Research in Psychology, 3 (2) 77-101 https://doi.org/10.1191/1478088706qp063oa

British Medical Association/NHS Employers (2018) Good Rostering Guide, Available at: https://www.nhsemployers.org/case-studies-and-resources/2018/05/good-rostering-guide [Accessed 21.06.20]

Buchan, J., Charlesworth, A., Gershlick, B and Seccombe, I. (2019) A critical moment: NHS staffing trends, retention and attrition, The Health Foundation. Available at: https://www.health.org.uk/publications/reports/a-critical-moment [Accessed 19.12.19]

Chan, Z., Cheng, W.Y., Fong, M.K., Fung, Y.S., Ki, Y.M., Li, Y.L., Wong, H.T., Wong, T.L. and Tsoi, W.F. (2019) Curriculum design and attrition among undergraduate nursing students: A systematic review, Nurse Education Today 74; 41–53

Dante, A., Valoppi, G., Saiani, L. and Palese, A. (2011) Factors associated with nursing students' academic success or failure: A retrospective Italian multicenter study, Nurse Education Today 31 (2011) 59–64

Deary, I.J., Watson, R., Hogston, R., 2003. A longitudinal cohort study of burnout and attrition in nursing students. Journal of Advanced Nursing, 43 (1), 71–81.

Demeda. L (2018) New initiatives to support staff retention Guy's and St Thomas' NHS Foundation Trust, London. Available at: https://www.nhsemployers.org/case-studies-and-resources [Accessed 16.09.19]

Department of Health (2015). Delivering high quality, effective compassionate care: Developing the right people with the right skills and the right values. A mandate from the Government to Health Education England: April 2015-March 2016. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/203332/29257_2900971_Delivering_Accessible.pdf
[Accessed 16.09.19].

Edwards, D., Burnard, P., Bennett, K., Hebden, U., (2010) A longitudinal study of stress and self-esteem in student nurses. Nurse Education Today 30 (1), 78–84.

Eick, S., Williamson, G. and Heath, V. (2012) A systematic review of placement-related attrition in nurse education, International Journal of Nursing Studies, 49, 1299-1309

Galvin, J., Suominen, E., Morgan, C., O'Connell, E., Smith, A., (2015) Mental health nursing students' experiences of stress during training: a thematic analysis of qualitative interviews. J. Psychiatr. Ment. Health Nurs. 22 (10), 773–783.

Health Education England (2015). Raising the Bar – Shape of Caring A Review of Future Education and Training of Registered Nurses and Care Assistants. Available at: https://hee.nhs.uk/sites/default/files/documents/2348-Shape-of-caring-review-FINAL.pdf [Accessed 16.09.19].

Jimenez, C., Navia-Osorio, P. M., & Diaz, C. V. (2010). Stress and health in novice and experienced nursing students. Journal of Advanced Nursing, 66(2), 442–455. https://doi.org/10.1111/j.1365-2648.2009.05183.x

Jones K., Warren, A., Davies A. (2015) Mind the Gap: Exploring the needs of early career nurses and midwives in the workplace, Birmingham and Solihull Local Education and Training Council, Available at: [Accessed 16.09.19]

Joyce K, Pabayo R, Critchley JA, Bambra C. (2010) Flexible working conditions and their effects on employee health and wellbeing. Cochrane Database of Systematic Reviews 2010, Issue 2. Art. No.: CD008009. DOI: 10.1002/14651858.CD008009.pub2.

Koning, C. (2014) Does self-scheduling increase nurses' job satisfaction? An integrative literature review, Nursing Management, Vol 21, No 6, PP24-28

Labrague L., McEnroe-Petitte, D., Gloe, D., Thomas, L., Papathanasiou, I. and Tsara, K. (2017) A literature review on stress and coping strategies in nursing students, J Ment Health; 26(5): 471–480

Li, C., Yin, H., Zhao, J., Shang, B., Hu, M., Zhang, P. and Chen, L. (2018) Interventions to promote mental health in nursing students: A systematic review and meta-analysis of randomized controlled trials, J Adv Nurs. 74:2727–2741.

Lovegrove, M. (2018) Reducing pre-registration attrition and increasing retention report, Health Education England. Available at: https://www.hee.nhs.uk/our-work/reducing-pre-registration-attrition-improving-retention [Accessed 19.12.19]

Mailloux C.G. (2006) The extent to which students' perceptions of faculties' teaching strategies, students' context, and perceptions of learner empowerment predict perceptions of autonomy in BSN students. Nurse Education Today 26(7), 578–585.

Moscaritolo, L. (2009) Interventional strategies to decrease nursing student anxiety in the clinical learning environment, Journal of Nursing Education, Vol 48, No1, PP17-23.

Nabe-Nielson, K., Garde, A.H. , Aust, B. & Diderichsen, F. (2012) Increasing work-time influence: consequences for flexibility, variability, regularity and predictability, Ergonomics, 55:4, 440-449, DOI: 10.1080/00140139.2011.646321

NHS Employers (2019) Case studies and resources, Available at: https://www.nhsemployers.org/case-studies-and-resources?sort=date_desc&category=%7b28b84ff5-ee73-4948-aef3-89eb21a3ecd4%7d&topic=%7bbc423d65-cc09-4ebd-b5e6-0abb565ba95c%7d [Accessed 16.09.19]

National Health Service Pay Review Body (2017) National Health Service Pay Review Body 30th report: 2017, Available at: https://www.gov.uk/government/publications/national-health-service-pay-review-body-30th-report-2017 [Accessed 22.05.2020]

Niemchak S, Canipe K, Frazier R (2008) I finally got the schedule that I wanted: initiating a self-scheduling committee in a progressive care unit. Critical Care Nurse. 28, 2, e33-34.

Nursing and Midwifery Council (NMC) (2018) Standards for Student Supervision and Assessment, Available at: https://www.nmc.org.uk/standards-for-education-and-training/standards-for-student-supervision-and-assessment/ [Accessed 29.06.2020]

Office for Students (2020) Supporting student mental health, Available online at: https://www.officeforstudents.org.uk/publications/coronavirus-briefing-note-supporting-student-mental-health/ [Accessed 22.06.2020]

Pearson J. (1998) An exploration of the empowerment of nursing students in a clinical context. Nursing Praxis in New Zealand 13(3), 45–55.

Richmond J, Greenhill M. (2003) Swapping traditional rostering for self-rostering within a cancer ward. Cancer Nursing Practice; 2(6):33–38. https://doi.org/10.7748/cnp2003.07.2.6.33.c82

Royal College of Nursing (2015) Spinning plates: working flexibly to support a healthy work-life balance, a guide for RCN representatives. Available at: https://www.rcn.org.uk/professional-development/publications/pub-004971 [Accessed 16.09.19]

Scanlon, A. (2018) How do university clinical school of nursing graduates choose their graduate nurse year program? Australian Journal of Advanced Nursing, Vol 26, No 2, PP34-38

The Universities and Colleges Admissions Service (UCAS) (2018). March Deadline Analysis: Subjects. Available at: https://www.ucas.com/file/159381/download?token=6loCY3JZ [Accessed 16.09.19].

Wray, J., Aspland, J., Barrett, D. and Gardiner, E., (2017) Factors affecting the programme completion of pre-registration nursing students through a three year course: A retrospective cohort study, Nurse Education in Practice 24;14-20

Wray, J., Barrett, D., Aspland, J. and Gardiner, E., (2012) Staying the course: Factors influencing pre-registration nursing student progression into Year 2—A retrospective cohort study International Journal of Nursing Studies 49; 1432–1442

Young, C., Alber, N., Paschke, S. and Meyer, K. (2007) The 'Parent Shift' Programme: Incentives for nurses, rewards for nursing teams. Nursing Economics, Vol 25, No 6, PP339-334

Table 1: Participant Detail

Pre intervention interviews (T0)		
	Number of attendees	**Roles**
Individual interview	**1**	**1 x nursing student**
Focus Group 1	**7**	**5 x midwifery students** **2 x nursing students**
Focus Group 2	**2**	**1 x midwifery student** **1 x nursing student**
Focus Group 3	**3**	**3 x nursing students**
Post intervention interviews (T1)		
	Number of attendees	**Roles**
Focus Group 1	**4**	**4 x nursing students**
Individual interviews with students	**3**	**3 x nursing students**
Individual interviews with staff	**7**	**1 x charge nurse** **2 x junior sisters** **1 x ward manager** **1 x sister/ward manager** **2 x nurses**