

Moncrieff, G., Hollins Martin, C.J., Norris, G., MacVicar, C. (in press 2022). It's no ordinary job": factors that influence learning and working for midwifery students placed in continuity models of care. *Women and Birth*. <https://doi.org/10.1016/j.wombi.2022.09.009>

## **“It’s no ordinary job”: factors that influence learning and working for midwifery students placed in continuity models of care**

Gill Moncrieff\*, RM, MRes; Caroline Hollins Martin, M PhD; Gail Norris, RM, PhD; Sonya MacVicar, RM PhD

School of Health & Social Care, Sighthill Campus, Edinburgh Napier University, EH11 4BN, United Kingdom

\*Corresponding author: [gmoncrieff@live.co.uk](mailto:gmoncrieff@live.co.uk)

@GillMoncrieff

07989 682 163

## **Background**

Maternity policy and guidelines increasingly recommend or stipulate the increased provision of midwifery continuity of carer as a priority model of care. The scale up and sustainability of this model will require that student midwives are confident and competent to provide continuity of carer at the point of qualification. Guidance relating to how to optimally prepare student midwives to work within continuity models is lacking.

## **Aim**

To explore perspectives and experiences of working within and learning from student placement within continuity models of care.

## **Methods**

An online mixed methods survey aimed at students and qualified midwives with experience of working within continuity models. Quantitative results were analysed through descriptive statistics while free text responses were brought together in themes.

## **Findings**

Benefits and challenges to placement within continuity were identified. These provide recommendations that will enhance learning from and skill development within continuity models of care.

## **Conclusion**

There is a need for continuity of mentorship and strong relationships between education and practice, and the provision of flexible curriculum content around this to enable students to prioritise attendance for women in their care. System level evaluation and support is needed to guide the optimal provision of continuity models, so that they are effective in improving outcomes and experiences for women, families, students, and midwives.

Foregrounding woman centred care as foundational to education and facilitating the critical deconstruction of dominant discourses that conflict with, and may prevent this form of practice, will promote the type of care that is integral to these models.

## **Keywords**

Midwifery education; curriculum development; continuity of carer; caseload midwifery; mixed methods survey

## **Statement of Significance**

### **Problem**

Midwifery students have previously gained experience and competence in providing continuity of carer through caseloading a number of women in addition to clinical experiences within fragmented models of care. As a result, it is unclear how to optimally prepare students for placements exclusively within continuity models of care.

### **What is already known**

While continuity of midwifery care is advocated in research and policy, implementation and scale up of this model has been hindered by a number of factors. Student placements directly within continuity models may provide the optimal learning experience for students, facilitating confidence, competence and motivation to work in these models upon graduation.

### **What this paper adds**

Learning from and working with within continuity models will be optimised for midwifery students through system level support to provide well-functioning sustainable models of care. Partnership working is required between all relevant stakeholders. This will provide the foundation to put women centred learning into everyday practice.

## 1. Background

Continuity of Carer (CoC) has been found to improve outcomes and experiences for women<sup>1,2,3,4,5,6</sup>, and working conditions for midwives<sup>7,8,9</sup>. However, the need for appropriate organisational, resource, economic, and educational structures to support these improvements has been emphasised<sup>10,11</sup>.

The implementation and scale up of continuity models of care has been mandated in policy, both nationally and internationally<sup>12,13,14</sup>. In Scotland, a five-year plan that envisaged CoC for the majority of women, as well as the significant re-organisation of maternity and neonatal services, was published in 2017<sup>13</sup>.

However, while many midwives recognise the importance of continuity models for women, many are resistant to working in this model of care<sup>15,16,17</sup>. Concerns often stem from the on-call nature of this model of care<sup>7,15</sup>. Challenges experienced when working within continuity models include difficulty finding a work-life balance, increased responsibility and emotional burden, difficult relationships with healthcare providers working out with the model, and where the philosophy of the fragmented system conflicts with the central philosophy of CoC models, of woman-centred, individualised care<sup>10,11</sup>.

While there are many known benefits of CoC, and policy and guidance stipulate the provision of this model of care, implementation and scale up of CoC has been slow both nationally and internationally. This has been suggested to be due, partly at least, to resistance to this way of working<sup>9,17</sup>. One suggested solution to this lies in the education and training of midwives<sup>18,19</sup>. If student midwives are confident, competent, and enthusiastic to work in these models, and are able to do so at the point of graduation, this may facilitate the sociocultural shift necessary for the successful implementation and future sustainability of CoC<sup>18,19,20</sup>.

Furthermore, national and international midwifery standards require midwifery students to gain experience in providing CoC. The United Kingdom standards for midwifery education include a whole domain on continuity of carer, stipulating that midwives must be competent to promote and provide continuity of carer at the point of registration<sup>21</sup>. There is no detail however, to guide the provision of this achievement through midwifery education.

The increasing presence of CoC in policy<sup>12,13</sup>, as well as in standards for midwifery education<sup>21</sup>, emphasises the importance of this learning experience and of identifying optimal ways of working within and learning from continuity models of care.

As implementation of continuity has been slow and variable, experience of providing continuity has traditionally been achieved through continuity of care experiences (CoCEs). In this educational model, students recruit and 'follow' women through their childbearing journey. The nature of this experience differs depending on the woman and the requirements of the education provider, but the objective is that students recruit a number of women early in the antenatal period, and assist with her care provision through the antenatal, intrapartum, and postnatal period. The aim of CoCEs has been described in various ways, including to gain experience in the provision of continuity<sup>22</sup>; to ensure that students are able to provide woman centred, evidence-based care<sup>23</sup>; to build capacity across the full scope of midwifery practice<sup>19</sup>; and to prepare students to work within CoC models at the point of graduation<sup>18</sup>.

There are increasing concerns relating to the nature of CoCEs, as for the majority of students they take place within the standard fragmented system of care<sup>23,24,25</sup>. Concerns include the impact of the predominant philosophy within the fragmented care system<sup>26</sup>, which has been described as focusing on efficiency, standardisation, and provision of care that meets organisational needs rather than those of the woman<sup>27,28</sup>.

As CoC models become more prevalent, there will be increasing opportunities for students to gain experience of providing continuity through placement within continuity models of care. This experience is likely to differ significantly to CoCEs, and ideally will provide students with a more realistic and holistic experience of CoC, including an understanding of the benefits of this model for both women and midwives, as well as how the model can function in a sustainable way<sup>23,29</sup>. The provision of placements within continuity models of care has been identified as a priority for midwifery education<sup>23,29</sup>.

This study was carried out at a Scottish University where the recent implementation of continuity teams meant that there was increasing opportunity to place students within continuity models of care. The requirements of Best Start, and of the Midwifery Standards, meant that it was increasingly necessary to effectively prepare students for placement and

working within continuity models. The study aim was to explore students' experiences of their placements within continuity models and to develop understanding of both students' and midwives' perspectives of their preparation for placement and future employment within continuity models of care.

This research provides recommendations for effective educational strategies to optimise learning from and working within continuity models. These recommendations will also be relevant for the provision of CoCEs, as well as for the provision of care that aligns with the underlying philosophy of this model of care; of woman centred, individualised care.

## **2. Methods**

This was an online mixed methods survey that aimed to gain insight into students' and midwives' perspectives and experiences of their preparation for, and learning within, continuity models of care. The survey was aimed at current student midwives studying at one university in Scotland and midwifery educators and clinical midwives globally. The questions differed slightly between the two surveys, reflecting the different populations and their relevant experiences.

### **2.1 Survey tool**

The survey was developed utilising NMC standards<sup>21</sup> for midwifery education and training and the results of a previous literature review<sup>30</sup>. Questions were focused mainly on the midwifery curriculum, and how well students' and midwives' felt the different aspects of the curriculum prepared students to work within continuity models of care. There were 22 questions in the student survey and 18 in the survey for qualified midwives. Following demographic questions there was a mix of Likert scales, yes-no, and free text questions. A pilot survey was tested by midwifery educators and was further developed as a result

### **2.2 Participants and recruitment**

Midwifery students that had been placed within continuity models at a UK university were invited to participate through a poster link on the institution's online learning platform. The poster detailed the nature of the research, that participation was voluntary and confidential, and contained an embedded link to the survey.

Qualified midwifery practitioners and educators who self-identified as having experience of working in, or providing education related to continuity of carer were eligible to participate. Recruitment of qualified midwives was through the use of a similar poster, that was posted on social media as well as the websites of maternity organisations. As continuity of care was not yet widespread in the UK, a survey that was open to both national and international participants was considered beneficial to gain insight into midwives' perspectives and experiences. Data collection commenced following university ethics approval.

### **2.3 Data analysis**

The survey was hosted on the online Novi-survey platform between June 2020 and September 2020 and had 49 student and 99 midwifery respondents. Data from the survey were converted onto Excel for analyses. Quantitative results were analysed through simple descriptive statistics while free text responses were brought together in themes.

### **2.4 Reflexivity**

GM believes CoC has the ability to improve outcomes and experiences, where teams have the resources to work in ways that align with the underlying philosophy of this model of care. She also believes that working within this model has the ability to provide students with a holistic, woman centred learning experience, and that this may foster a desire to work within this model of care. However, these models must be well-resourced and optimally implemented, otherwise this experience is likely to have a detrimental impact.

While the analysis was inductive, the use of reflexive methods acknowledges the central and subjective role of the researcher in shaping the analytic process. Instead of 'suspending' the social frames that shape interpretation, these were reflected on and analysed in relation to the research. Disconfirming data were sought throughout.

## **3. Findings**

This was a small survey study carried out as part of a larger Masters by Research project, that was designed to inform curriculum development to optimise learning from placements within continuity models of care. Results presented here are those that are applicable to the midwifery curriculum generally, whilst those specific to the host university are excluded. Participant demographics are documented in table 1.

<b>Table 1. Participant demographics</b>			
<b>Student participants (%)</b>		<b>Midwifery participants (%)</b>	
Year of study/programme		Length of midwifery experience	
First year	27	0-5 years	23
Second year	36	6-15 years	25
Third year	36	>15 years	52
Age range		Age range	
18-25	36	20-35	21
26-40	64	36-50	42
>40	0	>50	37

Three themes were generated from the qualitative data (free text questions as well as unprompted statements): ‘all aspects are relevant’; ‘it’s no ordinary job’; and ‘prioritising continuity’. These are described below, with quantitative data integrated into each of the themes where appropriate.

### **All aspects are relevant**

The free text questions highlighted the breadth and depth of learning that both students and midwives felt was required before going into clinical practice, and this may be particularly important prior to being placed in or working within a continuity model. Many students emphasised a need for more practice with core clinical skills, learning via clinical scenarios, and gaining more knowledge around high-risk care and emergency situations. For some it was perceived as important to have knowledge and practice relating to any potential scenarios that may be encountered, prior to going out into placement.

*‘Certainly ‘Medical Conditions And Emergencies’ both would be better to have had in first year prior to placement. Ideally, this could all be taught ahead of any placements.’*

Student\_P2

*‘All aspects are relevant as you are providing care throughout the full journey for the woman and her family.’* Student P1

For midwives, a priority was placed on the development of skills that are central to woman centred care and to evaluate evidence relating to care. Suggestions were also made that may be particularly important to caseloading, including leadership skills and attendance at



multidisciplinary team meetings. Time management and boundary setting strategies were highlighted as being essential for working within continuity models of care.

### **It's no ordinary job**

Some students appear to struggle with certain aspects of their continuity placement, including managing time and balancing workload around the placement. For others, confusion around what they were supposed to be doing and/or lack of continuity of mentorship or placement site, resulted in concerns that they were not getting sufficient opportunity to develop or consolidate their clinical skills. These challenges appear to have been exacerbated by the recent implementation of some of the continuity teams, which were still in the early stages of establishment, as well as staff shortages and resulting high workloads. However, the experiences left some students with the impression that this model of care was unmanageable for both students and midwives.

*'It's been very challenging and I worry that I have not been able to consolidate my learning in the same way others have on placements where they have had more fixed mentorship and continuity of placement area.'* Student P17

*'Mentorship and learning is negatively impacted with the implementation of Best Start.'*

*'Covid didn't help at all - but it is something that highlighted many strengths and weaknesses. It has become difficult to case load, impossible even.'* Student P21

*'Very poor staff morale, large shortages of staff. The ability to theory into practice, it is impossible for one midwife to attend all antenatal appointments, delivery and postnatal appointments for every woman in her caseload.'* Student P19

Many of the midwives felt there was a need for a strong grounding in the philosophy of continuity, as well as the evidence relating to the benefits it can provide to women, and to midwives in terms of the clinical benefits of really knowing women. On campus teaching by midwives who have worked within successful CoC models was suggested as a mechanism to facilitate this, and to provide students with knowledge of how continuity model can function in a beneficial and sustainable way.

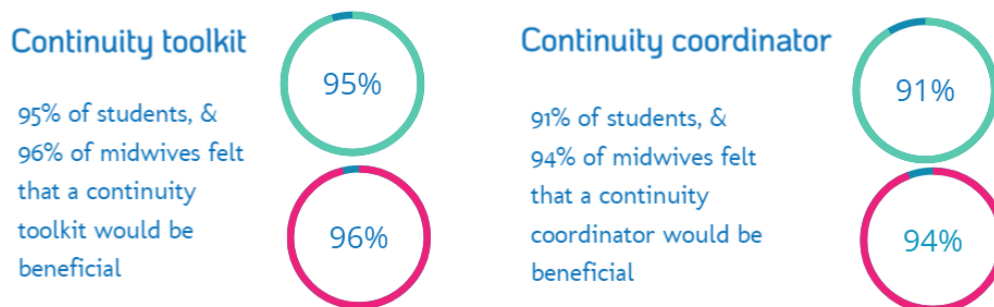
*'There should be a strong focus on the value of the relationship that is being built, and the job satisfaction that can arise as a result of continuity. Highlighting the clinical benefits of continuity in getting to know women's needs and being more able to recognise changes in health status and wellbeing.'* Midwife P26

One midwifery participant emphasised the importance of recruiting students who understood the requirements of working within continuity models, and were committed to this way of working.

*'Teaching from day one that midwifery is no ordinary job. If students are unwilling to follow the principles of providing continuity of care or object to the commitment to the profession, then the job is not for them. Therefore, choosing the right students up front is key here.'* Midwife P46

Student midwives provided practical examples of strategies that might help gain insight into the practicalities of working within CoC models, such as the student's role within the model, examples of how midwives might structure their day when providing caseload care, and the development of competencies directly associated with caseloading. The need for alignment between education and practice was emphasised, in terms of providing clarity to clinicians around required documentation, and more coherence between what students are taught and what they are expected to know in placement. There was wide support for strategies such as a continuity toolkit and/or a continuity coordinator (figure 1), which may address some of the above findings and challenges.

*'Better curriculum surrounding what we would see and do in placements, a lot of what was thought we would know in first year by mentors wasn't what we knew.'* Student P16



**Figure 1.** There was wide support among respondents for the implementation of a continuity toolkit and/or continuity coordinator to enhance learning

## Prioritising continuity

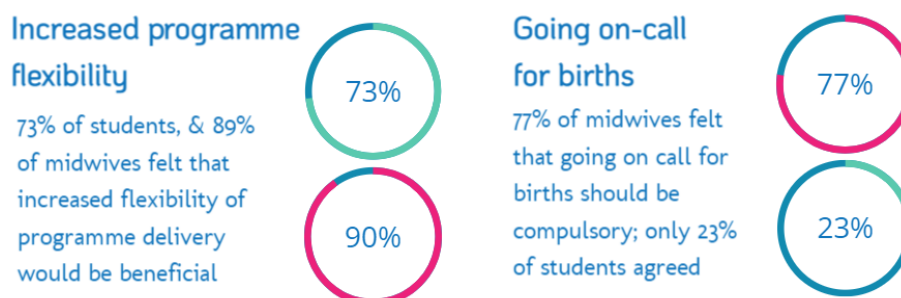
Many students and midwives discussed the need for longer placements to facilitate and consolidate learning; to allow students to develop professional relationships with mentors and the wider team; and to enable students to support women for longer, across the childbearing period. It was also suggested that continuity placements should enable students to support women all the way through pregnancy, birth and postnatal period, while recognising that this would be challenging.

Both student (73%) and midwifery (90%) respondents felt that increased flexibility of curriculum delivery would be beneficial, and participants pointed out the need for increased flexibility in the delivery of lectures and other educational strategies, in order to prioritise women on student's caseload and on-call commitments.

*'The placement in a CoC team needs to be for the whole pregnancy of a woman and postnatal period. In both the 1st and 3rd year. This will be the challenge and the flexibility of both the students and university.'* Midwife P45

*'Prioritise the woman being cared for above all else, appointments, classes, birth, PN period. Compulsory for the student to attend.'* Midwife P19

However, while 77% of midwifery participants felt that going on call for births should be a compulsory aspect of the midwifery programme, only 23% of students agreed with this, with most (73%) stating that on-call should be an optional aspect of the course (figure 2).



**Figure 2.** Both students and midwives wanted increased flexibility in the midwifery curriculum to prioritise attendance at continuity appointments. However, when it came to on-call, only 23% of students felt that this should be a compulsory aspect of the curriculum.

Continuity of mentor was integral to optimal learning for many of the participants. Students appear to have experienced placements where they were supervised by multiple mentors,

which inhibited the development of relationships, and impacted on the development of skills and confidence, as well as completion of the required documentation.

*'It can be difficult to raise personal learning difficulties with different people each day. It is also really hard to feel like part of the unit as a whole if you don't have a defined team that you are part of.'* Student P17

*'If you are working with someone new every shift, I feel my confidence goes down as I don't know their way of working or how involved they want us as students to be.'* Student P12

*'Working with a different mentor for each shift. It's hard to establish a relationship with mentor or be properly evaluated at the end of each placement when they haven't worked with you for majority of placement.'* Student P21

The key for many students and midwives was continuity of mentorship. It is unclear from the survey responses why this was not achieved within the continuity placements.

*'I feel that students should be allocated one or two continuity midwife "mentors" rather than be with a different midwife every day. This would enable the student to build her skills and knowledge as the midwife would be able to challenge the student, as the midwife knows where the student is at in her learning and skill set.'* Midwife P7

However, mentors were also acknowledged to have a negative impact, particularly due to unsupportive discourses around continuity, which were perceived to be a barrier to learning and the acquisition of women centred skills, as well as the desire to work in continuity models of care. The need for educational institutions to demonstrate positive attitudes towards continuity and to promote reflection and open conversations regarding these discourses, as well as the realities of working within this model from the perspective of students, was emphasised.

*'The negative perception of continuity and the associated way of working that is perpetuated by those who do not agree with it, or are strongly opposed to working in this way can undermine the students learning and development and hinder their ability to discover for themselves how they might experience this way of working.'* Midwife P26

*'Build in real opportunity for open and frank discussion about the concerns regarding continuity, either in the student, or being exacerbated by what they hear on the ground.'*

*Identifying where this is working well and ensuring a balance is provided in terms of the voices and experiences of midwives.’ Midwife P26*

#### **4. Discussion**

The establishment of continuity teams offers the potential for midwifery students to gain experience of providing CoC through placement within these teams. This could provide an optimal opportunity for midwifery students to develop woman centred practice; to gain insight into the way continuity models can facilitate flexible working and work-life balance; and to provide graduates that are capable and motivated to work in within this model of care<sup>23,24,31</sup>. However, there are benefits and challenges to placements within continuity models and data from this and other studies provides valuable impetus to optimise the opportunity that these placements provide.

#### **Juggling it all**

One of the challenges experienced by students in this and other studies is the ability to provide CoC, whilst also meeting additional, and the at times competing demands of their midwifery programme<sup>7,24,32,33,34,35</sup>. Challenges include the ability to attend appointments where theory and practice commitments are a barrier to this, and being on-call for births. It is suggested that attendance at appointments for women in students’ care should be prioritised and that this priority is made clear to students, education providers, and placement teams.

This will be facilitated through a flexible programme design that enables students to prioritise the women in their caseload and on-call commitments<sup>23,24</sup>. A flexible approach may include strategies such as the provision of lectures online or through podcasts, and intensive teaching blocks that minimise the time students are required to be on campus<sup>29</sup>. It is suggested that education providers take advantage of the rapid move to online teaching approaches made during the COVID-19 pandemic and drive forward this method of education provision<sup>29</sup>. However, research is required to determine how midwifery students have experienced such approaches, as well as their preferences for the future provision of midwifery education.

In addition, supportive structures that encompass midwifery education are required, so that students are equipped with the resources to establish appropriate professional boundaries with women and are supported to maintain a work-life balance.

### **Symbiotic relationships**

Many participants expressed concerns around being supervised by multiple mentors, which negatively impacted on their integration into the team and gaining the required competencies. Continuity of mentor has been found to be pivotal for learning within continuity models of care<sup>23,24</sup>, and should be prioritised as essential within clinical practice. It is unclear why students experienced such discontinuity within community placements, and the negative impact that this had on their practice experience was clear.

Student participants noted a lack of consistency between what they had been taught and what was expected of them in practice, as well as a lack of clarity within practice around requirements and expectations relating to documentation. The implementation of a continuity coordinator role may bridge the gap between education and clinical practice, as well as providing a form of structured support for student midwives. However, symbiotic relationships between education and practice have been emphasised as essential to address these challenges, and to ensure that students are optimally supported in placement<sup>24,36</sup>. This may be fostered through activities such as active involvement and engagement of placement teams in the co-production of relevant modules and placement materials<sup>37</sup>. Strong relationships between education and practice will ensure that all stakeholders are invested in the learning requirements and professional development of the future midwifery workforce.

### **Woman centred care**

The provision of women centred care is a primary aim of continuity models and this is reflected in midwifery respondent free text responses which prioritised this as essential learning within the student midwife curriculum. However, while woman centred care supposedly forms the foundations of midwifery philosophy and of quality midwifery practice<sup>38,39</sup>, there is a lack of consensus around precisely what woman centred care encompasses as well as guidance to drive the educational preparation for this form of practice<sup>40,41</sup>.

There is a need therefore to build consensus around a universal definition of woman centred care and to establish the optimal way of supporting this through midwifery education. It is suggested that once the core tenets of woman centred care have been established, student learning should be constructed around associated learning outcomes. A 'graduate attributes' model<sup>42</sup> could then be utilised, where learning is constructed around woman centred learning outcomes. This would provide clarity to students, as well as professionals and the wider public, that woman centred care is embedded within the curriculum, and is integral to the philosophy and practice of graduates<sup>41,42</sup>. When this is complemented by a flexible curriculum and symbiotic relationships with placement areas, this will facilitate opportunities to put an educationally developed woman-centred philosophy into practice.

Women require high quality, woman centred care, regardless of the model or setting. This approach may maximise learning from and working within continuity models, whilst optimising care within all settings.

### **Implementing models in an optimal way**

Policy recommendations for CoC include the provision of 'real' continuity of carer for all women and that models are set up according to the best available evidence<sup>13</sup>. However, it is unclear what this represents in practice, with limited evidence to guide the optimal design of CoC, in terms of experiences and outcomes for women and babies, ways of working for midwives, or sustainability of the model in the long term. Models risk being set up in an ad hoc manner that may not meet minimal requirements, and which may have a detrimental or less than optimal impact on student experiences.

Students in this and other studies were discouraged from working in continuity models due to the high workloads and working life of their midwife mentors<sup>24,29</sup>. In a survey carried out by Carter et al<sup>29</sup>, 89% of participants agreed that they were well-prepared educationally to work within a continuity model at the point of graduation, whilst only around half of the students wanted to transition into this model of care. This may be a particular issue where teams are new and establishing themselves, which provides additional challenges<sup>24</sup>, or where models are not sufficiently resourced to function in ways that are beneficial for midwives<sup>10,29</sup>.

Furthermore, students can be negatively impacted by colleagues that are unsupportive and espouse negative beliefs relating to continuity models. These negative discourses can have a detrimental impact on both students' and midwives' beliefs about continuity models and may further increase resistance to impede scale up of these models of care. Strategies are required within the curriculum to address and challenge these discourses, in ways that are meaningful and that reflect the realities of working within even very well-functioning continuity teams.

There are significant organisational responsibilities to provide the structures and support to fully operationalise this model to allow midwives and students to experience the benefits that this way of working can provide<sup>10,11</sup>. While strategies to mitigate some of the challenges of CoC are known, including a shared philosophy with co-workers, good leadership, and maintaining professional boundaries<sup>43</sup>, CoC is unlikely to be successfully implemented or sustained as a bolt-on to fragmented care, where the inherent philosophical, financial, and resource implications are at odds with the philosophical requirements of this model of care<sup>10</sup>. Significant, system-wide change is required for this model to operate both optimally and safely<sup>10,11</sup>. Furthermore, these changes may be an essential requirement to enable midwives to work to their full scope of practice, and to improve outcomes for women and babies.

## **Recommendations**

### **Flexible programme delivery**

Take advantage of and advance recent developments in relation to online and remote learning made over the COVID-19 pandemic. Additional strategies are required to guard against isolation, including the provision of maximum opportunities for online in-person engagement with lecturers, as well as opportunities for structured reflection within supportive communities of practice<sup>44,45</sup>.

### **Optimise continuity placements**

Prioritisation of continuity of mentor within midwifery standards, education, and practice<sup>23,24</sup>.



Development of a continuity toolkit <sup>46</sup> to enhance engagement with learning and skill development. This could include details relating to each placement area, and evidence relating to continuity and how an optimal model functions.

Formation of robust partnerships with placement areas, including implementation of a continuity coordinator to bridge the theory practice gap<sup>46</sup> and co-production of course content, placement plans, and documentation<sup>36,37</sup>.

### **Woman centred philosophy**

Identification of the core tenets of woman centred care and implementation of this philosophy throughout the curriculum and through to practice. This may be facilitated through the use of a scale that measures use of this practice through reflection<sup>47</sup>.

### **Challenging dominant discourses**

Utilise strategies within the curriculum to counterbalance conflicting discourses, including space for students to discuss these and other psychological complexities inherent in the midwifery role.

Include critical theory within the curriculum, to facilitate the deconstruction of dominant discourses and the space to envisage transformative change<sup>48</sup>.

Utilise the Bass model of reflection, to progressively develop the critical thinking and reflexive capacity required for these activities<sup>45</sup>.

## **4.2 Limitations**

There are some limitations to this study, including the time and resource restrictions of a Masters research project. For the midwives' survey, it became apparent after it went 'live', that it could have been improved by tailoring questions to midwifery education in general rather than relying on knowledge of a particular curriculum; as it is some of the answers could not be utilised in the synthesis due to this limitation. In addition, student midwife participants were recruited exclusively from one university in Scotland. Both of these factors may affect the generalisability of the study but this limitation is mitigated as the findings are substantiated by existing literature. The research project was also disrupted by the early

stage of the COVID pandemic, which meant that the focus groups that would have complemented these surveys could not be carried out. These may have added additional layers to the findings which should be explored in future research.

## **5. Conclusion**

The provision of CoC offers midwifery students opportunities to practice across the full scope of midwifery, facilitating the development of confidence and competence, and woman centred philosophy and practice. However, strategies are needed to enable students to recognise and establish appropriate professional and work-life boundaries.

Continuity of mentor should be prioritised. Along with symbiotic relationships between education and practice, this has the potential to offer transformative learning for students. Implementation of a continuity coordinator may optimise this approach.

Ideally, students will be placed within well-functioning, optimally supported, and sustainable continuity models to optimise learning and experiences, and to provide realistic expectations with regards to this model of care. The provision of a flexible curriculum around this will facilitate learning and engagement.

There are many challenges associated with the provision of continuity models that appear to emanate from inappropriate organisational and structural support. However, the precise requirements for the optimal provision of continuity models are not yet known. There is a need therefore for rapid evaluation and comparison of current models to determine the organisational requirements for optimal continuity models. However, this is unlikely to be achieved without significant restructuring of maternity services and significantly improved staffing levels, which are essential for the safe and effective provision of this model of care.

A key attribute of placement within continuity models is the ability to witness, practice and develop, skills associated with woman centred care. A curriculum that puts woman centred care at its centre and extends this philosophy across the programme and to practice may counteract dominant discourses, whilst also providing midwifery graduates with attributes that facilitate the provision of woman centred practice regardless of model of care.

## Author Contributions

GM: investigation, formal analysis, writing - original draft/review & editing; CHM: conceptualization, funding acquisition, writing – review and editing; GN: conceptualization, writing – review & editing; SM: conceptualization, supervision, writing – review & editing

## Acknowledgements and Disclosures

This research was funded by the host institution. There are no conflicts of interest.

## Ethical statement

Ethics approval was received from XXX School of Health and Social Care Research Integrity Ethical Approvals Committee (ref: SHSC20016).

## References

1. Allen J, Kildea S, Tracy MB, Hartz DL, Welsh AW, Tracy SK. The impact of caseload midwifery, compared with standard care, on women's perceptions of antenatal care quality: Survey results from the M@NGO randomized controlled trial for women of any risk. *Birth*. 2019 Jun 23;46(3):439–49. <https://doi.org/10.1111/birt.12436>
2. Forster DA, McLachlan HL, Davey M, Biro MA, Farrell T, Gold L, et al. Continuity of care by a primary midwife (caseload midwifery) increases women's satisfaction with antenatal, intrapartum and postpartum care: Results from the COSMOS randomised controlled trial. *BMC Pregnancy Childbirth*. 2016 Feb 3;16:28. <https://doi.org/10.1186/s12884-016-0798-y>
3. Homer CS, Leap N, Edwards N, Sandall J. (2017). Midwifery continuity of carer in an area of high socio-economic disadvantage in London: A retrospective analysis of Albany midwifery practice outcomes using routine data (1997–2009). *Midwifery*. 2017 May;48:1-10. <https://doi.org/10.1016/j.midw.2017.02.009>
4. Jepsen I, Juul S, Foureur M, Sørensen EE, Nøhr EA. Is caseload midwifery a healthy work-form? – A survey of burnout among midwives in Denmark. *Sex Reprod Healthc*. 2017 Mar;11:102-6. <https://doi.org/10.1016/j.srhc.2016.12.001>

5. McLachlan, H., Forster, D., Davey, M., Farrell, T., Gold, L., Biro, M, et al. Effects of continuity of care by a primary midwife (caseload midwifery) on caesarean section rates in women of low obstetric risk: The COSMOS randomised controlled trial. *BJOG*. Jul 25. 2012;119(12);1483-92. <https://doi.org/10.1111/j.1471-0528.2012.03446.x>
6. Sandall, J., Soltani, H., Gates, S., Shennan, A., & Devane, D. (2016). Midwife-led continuity models versus other models of care for childbearing women. *Cochrane Database of Systematic Reviews*. 2016 Apr 28;4(4):CD004667. <https://doi.org/10.1002/14651858.cd004667.pub5>
7. Dawson K, Newton M, Forster D, McLachlan H. Exploring midwifery students' views and experiences of caseload midwifery: A cross-sectional survey conducted in Victoria, Australia. *Midwifery*. 2015 Feb;31(2):e7–15 <https://doi.org/10.1016/j.midw.2014.09.007>
8. Dixon L, Guilliland K, Pallant J, Sidebotham M, Fenwick J, McAra-Couper J, et al. The emotional wellbeing of New Zealand midwives: Comparing responses for midwives in caseload and shift work settings. *New Zealand College of Midwives Journal*. 2017 Dec 1;53:5–14. <https://doi.org/10.12784/nzcomjnl53.2017.1.5-14>
9. Fenwick J, Sidebotham M, Gamble J, Creedy DK. The emotional and professional wellbeing of Australian midwives: A comparison between those providing continuity of midwifery care and those not providing continuity. *Women Birth*. 2018 Feb;31(1):38–43. <https://doi.org/10.1016/j.wombi.2017.06.013>
10. McInnes RJ, Aitken-Arbuckle A, Lake S, Hollins Martin C, MacArthur J. Implementing continuity of midwife carer – just a friendly face? A realist evaluation. *BMC Health Serv Res*. 2020 Apr 15;20(1). <https://doi.org/10.21203/rs.3.rs-24298/v1>
11. ace CA, Crowther S, Lau A. Midwife Experiences of Providing Continuity of carer: a Qualitative Systematic Review. *Women Birth*. 2021 Jul;35(3). <https://doi.org/10.1016/j.wombi.2021.06.005>
12. National Maternity Review. *Better Births: Improving outcomes of maternity services in England – A Five Year Forward View for maternity care*. 2016. <https://www.england.nhs.uk/publication/better-births-improving-outcomes-of-maternity-services-in-england-a-five-year-forward-view-for-maternity-care/>

13. Scottish Government. The best start: five-year plan for maternity and neonatal care. 2017. <https://www.gov.scot/publications/best-start-five-year-forward-plan-maternity-neonatal-care-scotland/>
14. Australian Nursing & Midwifery Accreditation Council. Midwife Accreditation Standards 2021. <https://www.anmac.org.au/document/midwife-accreditation-standards-2021>
15. Hollins Martin CJ, MacArthur J, Martin CR, McInnes RJ. Midwives' views of changing to a Continuity of Midwifery Care (CMC) model in Scotland: A baseline survey. *Women Birth*. 2019 Nov;33(5). <https://doi.org/10.1016/j.wombi.2019.08.005>
16. Newton M, Faulks F, Bailey C, Davis J, Vermeulen M, Tremayne A, et al. Continuity of care experiences: A national cross-sectional survey exploring the views and experiences of Australian students and academics. *Women Birth*. 2021 Jun <https://doi.org/10.1016/j.wombi.2021.05.009>
17. Taylor B, Cross-Sudworth F, Goodwin L, Kenyon S, MacArthur C. Midwives' perspectives of continuity based working in the UK: A cross-sectional survey. *Midwifery*. 2019 Aug;75(75):127–37. <https://doi.org/10.1016/j.midw.2019.05.005>
18. Cummins AM, Denney-Wilson E, Homer CSE. The challenge of employing and managing new graduate midwives in midwifery group practices in hospitals. *J Nurs Manag*. 2016 Feb 29;24(5):614–23. <https://doi.org/10.1111/jonm.12364>
19. Evans J, Taylor J, Browne J, Ferguson S, Atchan M, Maher P, et al. The future in their hands: Graduating student midwives' plans, job satisfaction and the desire to work in midwifery continuity of care. *Women Birth*. 2020 Feb;33(1):e59–66. <https://doi.org/10.1016/j.wombi.2018.11.011>
20. Gamble J, Sidebotham M, Gilkison A, Davis D, Sweet L. Acknowledging the primacy of continuity of care experiences in midwifery education. *Women Birth*. 2020 Mar;33(2):111–8. <https://doi.org/10.1016/j.wombi.2019.09.002>
21. Nursing and Midwifery Council. (2019a). *Realising professionalism: Standards for education and training. Part 3: Standards for pre-registration midwifery programmes*. <https://www.nmc.org.uk/standards/standards-for-midwives/standards-for-pre-registration-midwifery-programmes/>
22. Browne J, Haora PJ, Taylor J, Davis DL. "Continuity of care" experiences in midwifery education: Perspectives from diverse stakeholders. *Nurse Educ Pract*. 2014 Sep;14(5):573–8. <https://doi.org/10.1016/j.nepr.2014.01.014>
23. Sidebotham M, Fenwick J. Midwifery students' experiences of working within a midwifery caseload model. *Midwifery*, 74, 21-28. <https://doi.org/10.1016/j.midw.2019.03.008>

24. Carter, A. G., Wilkes, E., Gamble, J., Sidebotham, M., & Creedy, D. K. (2015). Midwifery students' experiences of an innovative clinical placement model embedded within midwifery continuity of care in Australia. *Midwifery*. 2019 Jul;74:21–8.  
771. <https://doi.org/10.1016/j.midw.2015.04.006>
25. Tickle N, Sidebotham M, Fenwick J, Gamble J. Women's experiences of having a Bachelor of Midwifery student provide continuity of care. *Women Birth*. 2016 Jun;29(3):245–51. <https://doi.org/10.1016/j.wombi.2015.11.002>
26. ray J, Leap N, Sheehy A, Homer CSE. Students' perceptions of the follow-through experience in 3 year bachelor of midwifery programmes in Australia. *Midwifery*. 2013 Apr;29(4):400–6. <https://doi.org/10.1016/j.midw.2012.07.015>
27. Bradfield Z, Kelly M, Hauck Y, Duggan R. Midwives “with woman” in the private obstetric model: Where divergent philosophies meet. *Women Birth*. 2019 Apr;32(2):157–67. <https://doi.org/10.1016/j.wombi.2018.07.013>
28. Finlay S, Sandall J. “Someone's rooting for you”: Continuity, advocacy and street-level bureaucracy in UK maternal healthcare. *Soc Sci Med*. 2009 Oct;69(8):1228–35. <https://doi.org/10.1016/j.socscimed.2009.07.029>
29. Carter J, Sidebotham M, Dietsch E. Prepared and motivated to work in midwifery continuity of care? A descriptive analysis of midwifery students' perspectives. *Women Birth*. 2021 Apr;35(2). <https://doi.org/10.1016/j.wombi.2021.03.013>
30. Moncrieff G, MacVicar S, Norris G, Hollins Martin CJ. Optimising the Continuity Experiences of Student midwives: an Integrative Review. *Women Birth*. 2020 Feb;34(1).  
<https://doi.org/10.1016/j.wombi.2020.01.007>
31. Baird K, Hastie CR, Stanton P, Gamble J. Learning to be a midwife: Midwifery students' experiences of an extended placement within a midwifery group practice. *Women Birth*. 2021 Jan; <https://doi.org/10.1016/j.wombi.2021.01.002>
32. Foster W, Sweet L, Graham K. Midwifery students experience of continuity of care: A mixed methods study. *Midwifery*. 2021 Jul;98:102966. <https://doi.org/10.1016/j.midw.2021.102966>
33. McLachlan HL, Newton M, Nightingale H, Morrow J, Kruger G. Exploring the “follow-through experience”: A statewide survey of midwifery students and academics conducted in Victoria, Australia. *Midwifery*. 2013 Sep;29(9):1064–72. <https://doi.org/10.1016/j.midw.2012.12.017>
34. Rawnsdon S. A qualitative study exploring student midwives' experiences of carrying a caseload as part of their midwifery education in England. *Midwifery*. 2011 Dec;27(6):786–92. <https://doi.org/10.1016/j.midw.2010.07.004>

35. ewton M, Faulks F, Bailey C, Davis J, Vermeulen M, Tremayne A, et al. Continuity of care experiences: A national cross-sectional survey exploring the views and experiences of Australian students and academics. *Women Birth*. 2021 Jun; <https://doi.org/10.1016/j.wombi.2021.05.009>
36. Sweet LP, Glover P. An exploration of the midwifery continuity of care program at one Australian University as a symbiotic clinical education model. *Nurse Educ Today*. 2013 Mar;33(3):262–7. <https://doi.org/10.1016/j.nedt.2011.11.020>
37. idebotham M, Walters C, Chipperfield J, Gamble J. Midwifery participatory curriculum development: Transformation through active partnership. *Nurse Educ Pract*. 2017 Jul;25:5–13. <https://doi.org/10.1016/j.nepr.2017.04.010>
38. Fahy K. What is woman-centred care and why does it matter? *Women Birth*. 2012 Dec;25(4):149–51. <https://doi.org/10.1016/j.wombi.2012.10.005>
39. World Health Organization. WHO recommendations: intrapartum care for a positive childbirth experience. 2018. <https://www.who.int/reproductivehealth/publications/intrapartum-care-guidelines/en/>
40. Brady S, Lee N, Gibbons K, Bogossian F. Woman-centred care: An integrative review of the empirical literature. *Int J Nurs Stud*. 2019 Jun;94:107–19. <https://doi.org/10.1016/j.ijnurstu.2019.01.001>
41. Towards a conceptualisation of woman centred care — A global review of professional standards. *Women and Birth*. 2021 Mar 4; <https://doi.org/10.1016/j.wombi.2021.02.005>
42. Cummins AM, Smith R, Catling C, Watts N, Scarf V, Fox D, et al. Midwifery Graduate Attributes: A model for curriculum development and education. *Midwifery*. 2018 Jun;61:66–9. <https://doi.org/10.1016/j.midw.2018.02.019>
43. McAra-Couper J, Gilkison A, Crowther S, Hunter M, Hotchin C, Gunn J. Partnership and reciprocity with women sustain Lead Maternity Carer midwives in practice. *New Zealand College of Midwives Journal*. 2014 Jun 1;49. <https://doi.org/10.12784/nzcomjnl49.2014.5.27-31>
44. Geraghty S, Bromley A, Bull A, Dube M, Turner C. Millennial midwifery: Online connectivity in midwifery education. *Nurse Educ Pract*. 2019 Jul; <https://doi.org/10.1016/j.nepr.2019.07.008>
45. Bass J, Fenwick J, Sidebotham M. Development of a Model of Holistic Reflection to facilitate transformative learning in student midwives. *Women Birth*. 2017 Jun;30(3):227–35. <https://doi.org/10.1016/j.wombi.2017.02.010>

46. McKellar L, Charlick S, Warland J, Birbeck D. Access, boundaries and confidence: The ABC of facilitating continuity of care experience in midwifery education. *Women Birth*. 2014 Dec;27(4):e61–6. <https://doi.org/10.1016/j.wombi.2014.08.005>
47. Davis DL, Creedy DK, Bradfield Z, Newnham E, Atchan M, Davie L, et al. Development of the Woman-Centred Care Scale- Midwife Self Report (WCCS-MSR). *BMC Pregnancy Childbirth*. 2021 Jul 23;21(1). <https://doi.org/10.1186/s12884-021-03987-z>
48. Howell KE. Critical Theory. In Howell KE, editor. *An introduction to the philosophy of methodology*. 2017. SAGE. <https://methods.sagepub.com/book/an-introduction-to-the-philosophy-of-methodology/n5.xml>