Exploring factors that may optimise learning from and working within continuity models of midwifery care

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Declaration

I declare that the work presented in this thesis has not been submitted for any other degree or professional qualification, and that it is the result of my own independent work.

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Abstract

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 the effectiveness of the pre-registration midwifery curriculum for optimal working within continuity models of care, and to prepare recommendations for effective working within and learning from this model of care.

Methods

This MRes project utilised an integrative literature review to identify barriers and facilitators to optimal working within continuity models of care, and online surveys, for student midwives and midwives, to explore perspectives and experiences of their preparation for and learning within continuity models of care. The results of the literature review and survey were analysed using reflexive thematic analysis and from a critical theory perspective.

Findings

The literature review emphasised the need to prepare students with regard to the intent and expectations of continuity within the curriculum and to establish a related philosophy across the programme and to practice. It also highlighted the need to prioritise continuity of mentor and to ensure students are supported through strategies to establish professional boundaries and strong education-practice partnerships. A continuity toolkit and continuity coordinator will be useful to complement these strategies.

The surveys confirmed these findings and emphasised the need for organisational support for continuity models, which needs to be optimised to support working in a way that aligns with the philosophy of continuity of carer. Prioritising 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 ensure women are optimally supported regardless of model of care.

Chapter 1: Background

1. Introduction

The intention of this research is to develop understanding of the most advantageous curriculum strategies to prepare student midwives for optimal learning from and learning within continuity models of midwifery care.

1.1 The model of care

Midwifery continuity of carer (CoC) is a model of midwifery care where women's maternity care is provided by the same midwife, in collaboration with other healthcare professionals where necessary, over the antenatal, intrapartum, and postnatal period (Royal College of Midwives (RCM), 2018). The aim is that a known midwife, working with a buddy midwife or as part of a small team, will be the leading healthcare professional and will conduct the majority of appointments, home visits and (ideally) intrapartum care. The buddy midwife, or other members of the team, may also provide care where necessary. However, CoC can be structured in many different ways, and it is unclear what the optimum set up is for this model of care (Sandall et al, 2016).

The central aims of CoC are the development of a trusting relationship, and the provision of woman centred, individualised care (Hildingsson et al 2021; Pace et al 2021). There is robust evidence that CoC improves outcomes (Homer 2017; Sandall et al, 2016) and experiences (Jepsen et al, 2017; Allen et al, 2019) for women. There is also evidence to suggest that it can improve working conditions for midwives, with the potential to reduce stress and burnout (Dawson et al, 2018), as well as increasing professional autonomy and emotional wellbeing (Fenwick et al 2018). However, these outcomes will depend on a variety of contextual and organisational factors (McInnes et al, 2020; Pace et al, 2021), and many midwives do not want to work in this model (Hollins Martin et al, 2020; Taylor et al, 2019) or do not expereince these benefits (Pace et al, 2021).

In the United Kingdom (UK), CoC was introduced in policy almost 30 years ago, in the Department of Health (DoH) Changing Childbirth report (Page, 1993). However, it has recently been re-introduced in both national and international policy and guidelines, including the Best Start and Better Births maternity reviews in the UK (National Maternity Review, 2016; Scottish Government, 2017) and Australian maternity policy (Australian

Health Ministers' Advisory Council, 2016), and guidance from the World Health Organisation (WHO), which recognises that as well as improving outcomes, midwifery CoC is one of the factors that may contribute to a positive birth experience (WHO, 2018).

1.1 Midwifery CoC: outcomes and experiences for women

In 2016, a Cochrane review comparing midwife led CoC to other models of maternity care was published (Sandall et al, 2016). This review included 15 randomised controlled trials (RCTs) and 17,674 women and their babies and demonstrated several benefits and no adverse effects when midwife-led CoC is compared to other models of care (Sandall et al 2016). Women in CoC models of care were more likely to have a known midwife to support them through labour and birth. They were also less likely to experience episiotomy or instrumental birth and more likely to experience spontaneous vaginal birth. The review also found that women in continuity models of care were less likely to experience preterm birth, less likely to experience fetal loss, and less likely to experience neonatal death. Additionally, women in CoC models were more likely to be satisfied with their care and this model was generally found to have a cost-saving effect (although these findings were perhaps less robust due to inconsistencies in the reporting of these outcomes, as well as ambiguity around what constitutes 'satisfaction' and how it should be measured). However, all of the studies included in this review were from high-income settings, therefore the findings cannot be generalised to low- or middle-income settings. Furthermore, the included trials compared different models of CoC, therefore which continuity model is most effective cannot be established, and it is unclear what components of midwifery CoC as a complex intervention are the effective requirements.

Other studies looking at midwifery CoC have demonstrated similarly improved outcomes. In a retrospective analysis of outcomes at a London-based caseload model over a 12-year period (Homer 2017), 96% of women were supported by their known or 'buddy' midwife for intrapartum care, 45% of women gave birth at home, caesarean section rates were reduced (16%) compared to national averages at the time, and spontaneous vaginal birth rates were high (80%). An RCT including 2314 women and their babies also demonstrated improved outcomes (McLachlan et al, 2012), including that women were less likely to use pharmacological analgesia during birth, and were less likely to experience caesarean section or episiotomy; and fewer infants were admitted to neonatal intensive care unit (NICU). In

this trial, women in the caseload group were more likely to be 'satisfied' with antenatal, intrapartum, and postnatal care, than women in standard care (Forster et al, 2016). Here, satisfaction was assessed using a questionnaire relevant to the period in pregnancy (whether antenatal, intrapartum, or postnatal) and statistical analysis of Likert responses.

Women's (and partners') experiences of CoC models have also been explored qualitatively and show similarly positive outcomes. In this model of care, it has been evidenced that couples can develop a trusting relationship with their midwife, resulting in the development of confidence and feelings of empowerment, as well as security that their individual needs and preferences are known (Allen et al, 2019; Beake et al, 2013; Dove and Muir Cochrane 2014; Jepsen et al, 2017).

1.2 Midwifery CoC: preferences and experiences of midwives

Working in CoC models has been reported to reduce stress, burnout and depression among midwives, as well as increasing sense of professional identity, autonomy and sense of wellbeing (Dixon et al, 2017; Fenwick et al, 2018). Central elements of the rewards experienced when working within CoC models for midwives are the ability to develop reciprocal relationships with women, flexibility of working, professional autonomy, and sense of professional belonging (McInnes et al, 2021; Newton et al 2021; Pace et al, 2021).

While many midwives recognise the importance of continuity models for women, it has frequently been found that many do not want to work in this model of care (Hollins Martin et al, 2020; Newton et al, 2021; Taylor et al, 2019). Concerns include not being able to find a work-life balance, the on-call nature of this model, lack of skills in areas of midwifery where midwives do not frequently practice, and a preference for shift work and the type of care provided in standard models (Hollins Martin et al, 2020; Newton et al, 2021; Taylor et al, 2019). These concerns may create or exacerbate prevalent discourses relating to CoC, which may have a negative impact on implementation efforts (Fenwick et al, 2018).

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 (McInnes et al, 2020; Pace et al, 2021).

There are however significant organisational responsibilities to provide the structures and support to fully operationalise this model to allow midwives to experience the benefits that this way of working can provide (McInnes et al, 2020). 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 (McAra-Couper et al, 2014), 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 (McInnes et al, 2020). Significant, system-wide change is required for this model to operate both optimally and safely (McInnes et al, 2020). 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.

1.3 Midwifery CoC: a complex intervention

Various elements of CoC have been proposed as important to facilitate the improved outcomes seen when women experience this model of care (Allen et al, 2016; Perriman et al, 2018), and it may not be continuity *per se that* results in improved outcomes (Downe 2016; Forster et al, 2016). In most studies that assess outcomes associated with CoC, midwives self-select onto the model of care. It is thus suggested that these models may therefore often be staffed by midwives with certain traits and philosophical commitments (Allen et al, 2016; Forster et al 2016). These include a tendency towards shared decision-making, and woman-centred, individualised care (Allen et al, 2016) and to advocate for and empower women (Allen et al, 2017; Rayment Jones et al, 2020), as well as a belief in the inherent normality of birth (Allen et al, 2016). According to some authors, it may require the sort of midwife that will go 'above and beyond' (Allen et al, 2017; Rayment-Jones et al, 2019).

It may be however, that these characteristics are enabled or will develop through working in a well-functioning and fully supported CoC model (Dove and Muir-Cochrane, 2014; Downe 2016; McInnes et al, 2020). It may be that when midwives are able to practice in ways that liberates or promotes their professional philosophy, this results in improved outcomes and experiences (Downe 2016). These philosophical commitments include the provision of skilled, knowledgeable and compassionate care, respecting women's individual views and circumstances, optimising normal biological, psychological, social and cultural processes,

and strengthening women's own capabilities (Renfrew et al, 2014). Critically, these philosophical commitments must be enabled by organisational structures supporting the model of care (Downe 2016; McInnes et al, 2020).

1.4 Midwifery CoC: policy and provision in Scotland

The Best Start maternity review was published in 2017. This report outlined significant changes to the delivery of maternity and neonatal care within Scotland, to be established over a five-year time period (Scottish Government, 2017). For maternity care, a central aim is the provision of CoC which, through prioritising relationship-based care, will enable person-centred, individualised care that views birth as a normal physiological process and supports women to maximise their capabilities (Scottish Government, 2017). Although the review recognises that models will need to be set up according to various contextual factors, including taking into account for example, women with complex social needs, it recommends that the primary midwife should provide the majority of care for a caseload of 35 women, including the provision of care over intrapartum period. The review also set out a view that the majority of midwives will work within the community to provide this care, with a small core team only working within the hospital setting (Scottish Government, 2017).

While the review recommends that all women should have 'real' continuity of carer, 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. It also recommends that models are set up according to the best available evidence, but it is unclear what this is, or how models should be optimally designed, and models are thus being set up in an ad hoc manner that may not meet minimal requirements. For example, many CoC teams do not specify the provision of intrapartum care by the primary midwife, and a recent evaluation strongly suggests that midwives working within these models are not supported by some midwifery or other colleagues working within standard care (McInnes et al, 2020). Furthermore, systemic and organisational structures may not be sufficiently supportive, and may represent a significant barrier to this type of care (McInnes et al, 2020). If models fail as a result, this is likely to be seen as evidence that CoC does not work, rather than failure of the

system to optimally support it; and is likely to increase resistance and resentment towards implementation efforts.

1.5 Midwifery CoC: students as a solution?

While there are many known benefits of CoC, and policy and guidance stipulate the provision of this model of care (National Maternity review, 2016; Scottish Government 2017; WHO, 2018), implementation and scale up of CoC has been slow both nationally and internationally. This has been suggested to be due, partly at least, to a lack of midwives that want to work in this way (Fenwick et al, 2018; Taylor et al, 2019). One suggested solution to this lies in the education and training of midwives (Cummins et al, 2016; Evans et al, 2020). 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 this model of care (Cummins et al, 2016; Evans et al, 2020; Gamble et al, 2020).

Both national and international midwifery standards require midwifery students to gain experience in providing CoC. However, as implementation and scale up of continuity models has been slow, most women receive care under the standard fragmented maternity system. As a result, while students may gain experience of CoC through placement within continuity models, 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 idea 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 (Browne et al, 2014); to ensure that students are able to provide woman centred, evidence-based care (Sidebotham and Fenwick, 2019); to build capacity across the full scope of midwifery practice (Evans et al, 2020); and to prepare students to work within CoC models at the point of graduation (Cummins et al, 2016).

In Australia, midwifery students must complete a minimum of 10 continuity experiences, and midwifery standards stipulate a minimum of four antenatal visits, two postnatal visits, and for the majority of women, presence at the birth (Australian Nursing and Midwifery Council (ANMAC), 2019). The UK standards for midwifery education however, state only that education providers must 'provide students with learning opportunities to enable them to achieve the proficiencies related to continuity of midwifery carer across the whole continuum of care for all women and newborn infants' (Nursing and Midwifery Council (NMC), 2019a). The standards of proficiency for midwives 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 (NMC, 2019b). However, there is no detail relating to how this should be achieved through midwifery education.

There are increasing concerns relating to the nature of CoCEs, where for the majority of students they take place within the standard fragmented system of care (Carter et al, 2015; Sidebotham and Fenwick, 2019; Tickle et al, 2016). Concerns include the impact of the predominant philosophy within the fragmented care system (Grey et al, 2013), which has been described as focusing on efficiency, standardisation, and the provision of care that meets organisational needs rather than those of the woman (Bradfield et al, 2019; Finlay and Sandall 2009). 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 be very different to providing 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 it can function in a sustainable way (Carter et al, 2021; Sidebotham and Fenwick 2021). The provision of placements within continuity models of care has been identified as a priority for midwifery education (Carter et al, 2021; Sidebotham and Fenwick, 2019).

Implementation of CoC has been variable across the 14 health boards in Scotland, but the establishment of a number of teams across placement areas for Edinburgh Napier University has provided the opportunity to place students within continuity models as the primary method through which they gain their clinical experiences. In order to optimise the significant potential presented by this opportunity, this study aimed to develop

understanding of the most advantageous curriculum strategies to prepare student midwives to work within Best Start teams.

The standards for midwifery education and for practice at point of qualification were updated in 2019. The updated standards of proficiency for midwives include an entire domain allocated to CoC, which along with the requirements of Best Start, meant that it was increasingly necessary to ensure the ability to effectively provide CoC within the curriculum. This research was intended to inform curriculum development at Edinburgh Napier University (ENU), as part of the regular revalidation of the midwifery programme, which is required to meet the standards set out by the NMC (NMC, 2019a; NMC, 2019b).

1.6 Aim

To explore perspectives and experiences of the effectiveness of the pre-registration midwifery curriculum for optimal working within continuity models of care, and to prepare recommendations for effective working within and learning from this model of care.

1.7 Objectives

- To explore the existing literature to identify barriers and facilitators to the provision of continuity of care by student midwives
- To explore student midwives' experiences of factors within the curriculum that facilitate or inhibit their effectiveness to work within continuity models of care
- To explore midwives' perspectives of student preparation to work within continuity models of care
- To establish recommendations for optimal learning from and working within continuity models of care
- To inform changes to the curriculum for student midwives at ENU

1.7 Methodology

This study is underpinned by a critical qualitative paradigm (Canella and Lincoln, 2015). The intention of this study was not to undertake in-depth philosophical analyses or discussion, but it is recognised that these will usually, if not always, be informed by the theoretical assumptions of the researcher, and that these should be made explicit. A critical paradigm

explores the social construction of knowledge, practice, and experience (Canella and Lincoln, 2015; Howell, 2013; Thomson, 2017). It recognises however, that while human action is constrained by dominant discourses, it is also capable of deconstructing and reconstructing these discourses. Inherent within this paradigm is acknowledgement that the interpretation of discourse, practice and experience are influenced by the perspectives of the researcher (Canella and Lincoln, 2015; Howell, 2013; Thomson 2017). While a critical paradigm represents the prevailing perspective of the researcher, it was also seen to be particularly relevant to the practice and experience of providing CoC. This model of care is a complex intervention, and experiences of providing CoC, as well as the impact it has, is dependent on values and beliefs that are socially, historically, politically, and economically constructed (Fenwick et al, 2019; McInnes et al, 2020).

1.8 Methods

Integrative review methods (Whitmore and Knafl 2005) were used for the literature review (chapter 2), which identified barriers and facilitators to student midwives optimally working within and learning from providing CoC. The findings of this review were utilised to develop two online mixed methods surveys (chapter 3); one for student midwives who had experience of placements within CoC models at ENU, and another for midwives (practicing, academic, and working in other disciplines). These surveys aimed to gain insight into students' and midwives' perspectives and experiences of their preparation for and learning within continuity models of care. Results were analysed using reflexive thematic analysis (Braun and Clarke 2020a). This approach was chosen at it specifically acknowledges the role of the researcher in the generation of themes and findings, as well its theoretical flexibility which means that it can be used within any of the major ontological and epistemological frameworks but may be particularly suited to a critical paradigm (Clarke and Braun, 2014).

Quantitative data from the surveys was converted into categories and themes through convergent qualitative synthesis (Hong et al, 2017; Pluye et al, 2014). Findings from the survey were then explored from a critical theory perspective, in relation to the wider literature as well as the Standards for Midwives (NMC, 2019b) and the policy directives of Best Start (Scottish Government, 2017) (chapter 4). Recommendations for optimal learning from and working within continuity models were then made in line with findings.

Reflexivity

As previously discussed, this study is influenced by the critical perspective of the researcher. The researcher is also a midwife who completed her pre-registration midwifery education at ENU and believes CoC has the ability to improve outcomes and experiences, for women, midwives and student midwives, where teams have the resources to work in ways that align with the underlying philosophy of this model of care. The researcher 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 (again with the caveat that these models must be well-functioning, otherwise this experience is likely to have the opposite effect). However, as a mother and through listening to the perspectives of other midwives, it is unclear whether even a very well-functioning CoC model is ideal for many. The researcher was aware of these prior beliefs throughout and maintained an intention to include data that disconfirmed these prior beliefs.

As a midwife the researcher is required to uphold the professional standards set out in The Code, which apply whether in practice, education, or research (NMC, 2015).

Conclusion

There are undoubtedly benefits to be had through the provision of CoC, for women and midwives, however this requires a well-structured and well-supported model, within a system which also supports this way of working. It is unclear whether all midwives would want to work within even a well-functioning continuity model, due to requirements such as on-call work and the flexible way of working which can challenge the ability to find a work-life balance. The education of student midwives who are confident and competent to work within these models has been proposed as a potential solution to this problem, whether this is realised remains to be seen.

However, the policy directives of Best Start and the NMC standards require that midwives are optimally educated to work within continuity models of care. The establishment of continuity teams across ENU placement areas provides the opportunity to place students directly within continuity models, rather than experiencing continuity only through CoCEs. This research will provide recommendations for effective educational strategies to optimise

learning from and working within continuity models, to maximise the potential that this opportunity offers. 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.

Chapter 2: Literature review

Continuity of Carer (CoC) is recognised as the optimal model of care to improve outcomes and experiences for women (Allan et al, 2019; Forster et al, 2016; Homer, 2017; Jepsen et al, 2017; McLachlan et al, 2012; Sandall et al 2016), and working conditions for midwives (Dawson et al, 2015; Dixon et al, 2017; Fenwick et al, 2018), when supported by appropriate organisational, resource, and economic structures (McInnes et al, 2020; Pace et al, 2021). As a result, the implementation and scale up of continuity models of care has been mandated in policy, both nationally and internationally (National Maternity Review, 2016; Scottish Government, 2017; WHO 2016). 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.

The provision of continuity of care experiences (CoCEs) already forms part of the midwifery curriculum in countries including the UK and Australia (NMC, 2019a; ANMAC 2017), where the aim has been variously described, including the provision of experiences that enable students to work across their full scope of practice and/or to provide woman-centred care (Evans et al, 2020; Sidebotham and Fenwick, 2019), as well as being central to the future sustainability of this model of care (Cummins et al, 2016; Evans et al, 2020). However, the increasing presence of CoC in policy, as well as in standards for midwifery education (NMC, 2019a), emphasises the importance of this learning experience and of identifying optimal ways of working within and learning from continuity models of care. While some students will already have experienced placement within caseload models of care, as provision of this model escalates nationally there will be increasing opportunities for student midwives to gain experience of CoC through placement within these. This literature review was undertaken to identify barriers and facilitators to optimal learning and working for student midwives when providing CoC for childbearing women and their families. As student midwives currently provide CoC through both CoCEs, and working within continuity models of care, both of these educational models are included in this synthesis.

Aim

To identify barriers and facilitators to optimal learning and working for student midwives when providing CoC, in order to provide a holistic overview of the factors that impact on experiences and outcomes of this educational model.

Methods

The review was conducted using integrative review methods as described by Whittemore and Knafl (2005). As stipulated by the authors/developers of this framework (Whittemore and Knafl, 2005), which specifies explication of theoretical perspective, the review was conducted from a critical perspective, in which knowledge, experience and reality are shaped by sociocultural discourses (Canella and Lincoln, 2015). However, findings are grounded in the data, rather than being driven by this theoretical perspective.

Integrative reviews are said to provide a comprehensive, holistic understanding of the subject of interest, through allowing for the inclusion of research that uses diverse methodology, as well as both empirical and theoretical literature (Whittemore and Knafl, 2005). The framework developed by Whittemore and Knafl separates the literature review process into the following five stages: problem identification; literature search; data evaluation; data analysis; and presentation.

Problem identification

The provision and experience of providing CoC by student midwives forms an integral component of midwifery education for many. These may facilitate or be required to develop understanding and competence across the whole scope of midwifery practice, as well to facilitate the development of woman centred practice and philosophy (Evans et al, 2020; Sidebotham and Fenwick, 2019). A comprehensive overview of the factors that promote or inhibit optimal working and learning when providing CoC is lacking. This was considered necessary and timely given policy recommendations for the increased provision of continuity models of care; the sustainability of which will require that midwifery students are confident, competent and enthusiastic to work in these models at the point of graduation (Cummins et al, 2016; Evans et al, 2020). Furthermore, due to recommendations set out in the Best Start maternity review (Scottish Government, 2017), the opportunity for

students to undertake placements within continuity models at ENU had recently become available. The identification of facilitators and barriers to learning from these experiences may facilitate the optimal engagement of student midwives with these experiences.

Literature search

Searches were conducted in CINAHL, MEDLINE, and Cochrane databases using the terms midwi*; continuity of care; student, midwifery; education, midwifery; student, experiences; education, clinical; and new graduates. Inclusion criteria were publication in English, from 2010 onward, and in peer reviewed journals. This strategy was a pragmatic approach, given time limitations, which aimed to develop understanding of contemporary barriers and facilitators to student learning within continuity models of care. Out with the inclusion criteria, studies were excluded if they did not include facilitators or barriers to midwifery students learning or working while providing CoC. The search strategy was guided by the librarian at ENU.

Although a more exhaustive search strategy may have resulted in more studies to screen and perhaps then include, this review was not intended to provide an exhaustive overview of all studies that included the experiences of CoCEs. Rather the intention was to provide contemporary interpretation and critique of barriers and facilitators to learning within continuity experiences. While a highly technical search strategy may be appropriate for narrow questions that aims to ensure reproducibility, with the purpose that another review team may obtain the same results; this was not the aim of this review, where the role of the interpretive lens of the researcher have been made explicit, and the aim was to expand understanding in relation to the topic. The hierarchy of systematic approaches which supposedly minimise bias, over this narrative, interpretive, is worthy of consideration (Greenhalgh et al, 2018).

Two independent reviewers undertook screening and eligibility assessments. The search initially identified 82 records for potential inclusion. Reference lists of these papers were also screened, identifying a further 18 articles. After de-duplication, 66 records remained, and 25 of these were excluded at the title/abstract screening stage. Following this initial screening, full text records for the remaining 41 hits were assessed for eligibility, and 29 of these were excluded, largely due to there being little or no focus on barriers or facilitators

to learning through provision of CoC. As a result of this process, 12 studies were included in the review. An overview of the screening and selection procedure is provided in figure 1. Since the search was initially carried out (Moncrieff et al, 2020), an additional three relevant studies have been conducted (Baird et al, 2021; Carter et al, 2021; Foster et al, 2021) and are included in this updated synthesis.

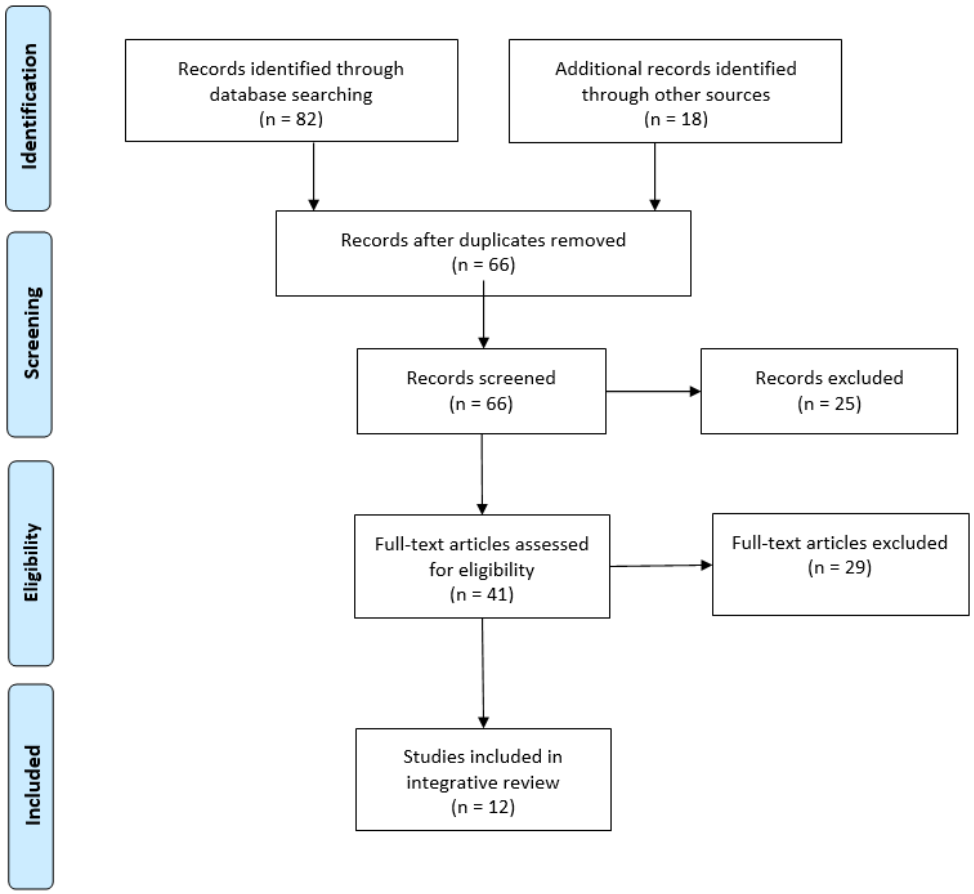

Figure 1. Screening and selection process

Data evaluation

Of the 12 included papers, two were reviews (Ebert et al, 2016; Gamble et al, 2020); six were mixed methods studies (Carter et al, 2015; Dawson et al, 2015; Gray et al, 2012; McKellar et al, 2014; McLachlan et al, 2013; Tickle et al, 2016); and four utilised a qualitative design (Grey et al, 2013; Rawnson et al, 2011; Sidebotham and Fenwick, 2019; Sweet and Glover, 2013). There was only one paper from the UK, and this took place in 2011 (Rawnson et al, 2011); all other studies took place in Australia.

Although this is a large number of papers from a non-UK context, Australia and the UK have a very similar maternity care and undergraduate midwifery education context, so this was not considered to have a detrimental impact on the generalisability of the findings to inform the aims of the study. Furthermore, Australia has a very well-established continuity of carer research agenda, particularly in relation to midwifery education. It was felt that this research could therefore reliably inform consideration and adaptation of the curriculum at ENU.

Quality of the included studies was independently assessed by two reviewers using the Joanna Briggs Institute (JBI) Critical Appraisal Checklist for Text and Opinion for the reviews (McArthur et al, 2015), and the Mixed Methods Appraisal Tool (MMAT) (Hong et al, 2018) for the remaining studies. The results of the quality appraisal process are provided (appendix A). Following quality appraisal, all 12 of the papers were included in the review (see appendix B for a summary of the included studies).

Data analysis

The data analysis stage is recognised to be one of the most under-developed aspects of the integrative review, due to the diversity of primary sources for potential inclusion in the synthesis. The use of analysis methods for primary research, and the use of grounded theory's constant comparison approach are suggested for this stage (Whitmore and Knafl, 2005). However, the aim of this review was to identify patterns of shared meaning across the data with no specific intention to take an interpretive approach, and data were collected as a process that was independent to the analysis, rather than undertaking theoretical sampling as concepts develop, which is a central concept for constant comparison.

Reflexive thematic analysis (TA) was chosen as the appropriate method for this stage of the review (Braun and Clarke 2020a). This version of TA has been refined since the original methods paper (Braun and Clarke, 2006), and now emphasises the central and subjective role of the researcher in the analytic process (Brauna and Clarke 2020a; Braun and Clarke 2020b). The authors of reflexive TA emphasise that this approach is very different to that of other TA approaches, many of which are focused on ensuring procedural reliability and removing or obscuring any influence of the researcher from the process. According to the authors, these approaches orientate towards a quantitative paradigm, whereas reflexive TA

is inherently qualitative, emphasising contextualised findings and the role of the researcher in shaping the analytic process.

Through utilising reflexive TA, themes are developed as patterns of shared meaning underpinned by a central concept. Through using this analytic approach, data analysis may be inductive (data-driven) and/or deductive (theory-driven), recognising that rather than being dichotomous approaches to analysis, these differences often occur over a continuum, and analyses may therefore incorporate both approaches to varying extents. For the purposes of this review, the analysis is primarily anchored in the data (taking an inductive approach), whilst acknowledging that prior assumptions will always inform the analysis to some extent (Braun and Clarke 2020b).

As each paper was read and re-read, facilitators and barriers were identified and logged. These were then organised iteratively into themes by the researcher (table 1).

Presentation

Themes developed during the analysis are presented in the following synthesis, which provides a conceptual overview of the facilitators and barriers to optimal working and learning for student midwives when providing continuity of carer. 'Relationships' was identified as a central theme, representing the importance of the development of relationships for effective learning. The second theme, 'setting the standards', describes the lack of evidence to inform the optimal provision of continuity experiences for student midwives, resulting in a lack of direction relating to their intent. A strong evidence base, that translates into clear guidance and curriculum coherence is required for the effective provision of this educational model. The final theme is conflict or coherence, which highlights the disparity that exists when CoCEs are provided within fragmented models of care. In order to develop understanding of the full scope of the midwife and how sustainability of this model is achieved, placements within continuity models of care may be required.

Table 1. Barriers and facilitators to student learning represented thematically.			
Theme	**Subtheme**	**Barriers**	**Facilitators**
Relationships	With women	Demands of course requirements Impact on course requirements Difficulties achieving a work-life balance On-call nature Emphasis on numbers Prescriptive requirements/seen as a tick-box exercise Minimal contact requirement Students left to manage professional boundaries Blurring of professional boundaries	Focus in programme on relationships Understanding that attending appointments is a priority Strategies to achieve a work life balance within caseload practices Flexible programme delivery Flexible way of working Involvement in all of pregnancy, birth and postpartum Supportive frameworks within the curriculum Strategies within the curriculum that facilitate a work-life balance Focus on underlying intent and building relationships rather than numbers Guidance around professional boundary setting Continuity coordinator
	With mentor	Short placements Unknown mentor Unsupportive or assertive mentor Lack of confidence	Continuity of mentor Known and trusted mentor Supportive mentor Close student-midwife relationship Strategies within curriculum to enhance confidence

	With team	Short placements Supervision by unknown clinicians Difficult relationships with clinicians Feeling a hinderance/ignored in placement Clinicians unaware of role of student Students not notified when women in labour Lack of confidence	Continuity of placement site Building of relationships with placement team Supportive team members/clinical learning environment Value of student recognised Development of future workforce seen as a shared responsibility Collaboration between education providers and maternity services to ensure students are supported Strategies within curriculum to enhance confidence
Setting the standards	A surface approach	Seen as an additional part of the programme Little input or support from academic staff Seen as in competition with other course requirements Prescriptive requirements Lack of clear understanding of purpose No clear approach with regard to expectations, intention, or assessment of experiences Conflicting advice and confusion regarding documentation	Systems that support and monitor experiences Continuity toolkit Continuity experiences from first year Clear guidance around expectations Focus on underlying intent Seen as a primary way of gaining midwifery skills Clear guidance with regard to documentation Documentation to assist with learning Meaningful reflection on experiences

	Providing a foundation	Lack of evidence to guide the scope or quantity of continuity experience Lack of consistency with implementation Lack of guidance around intention, learning outcomes or assessment	Establishing underlying intent Consistent, evidence-based approach Clear guidance around measurable learning outcomes Clear guidance in midwifery standards for education around the intent and expected learning outcomes
	Curriculum coherence	A surface approach to continuity experiences is taken Seen as an additional part of the course Seen as a tick-box exercise Lack of clear understanding of purpose No clear approach with regard to expectations, intention, or assessment of experiences Lack of guidance around intention, learning outcomes or assessment Should be seen as a primary way of gaining midwifery skills	Prioritisation of continuity experiences in programme Building programmes around continuity experiences Alignment of programme philosophy with learning outcomes Alignment of coursework with continuity experiences Programme with strong commitment to continuity and underlying relationships Continuity at the core of and across the curriculum Assessment to include continuity e.g., meaningful reflection and comparing different models of care Flexible programme delivery
Conflict or coherence		Continuity experience within fragmented model of care	Placement within a caseload model of care Embedding continuity experiences within placement in a caseload model Mentors that practice with a women-centred philosophy

Findings

Providing CoC was valued highly by student midwives – a finding congruent across all included papers. For many, providing CoC was experienced as the most valuable aspect of their pre-registration education (Carter et al, 2021; Grey et al, 2012; Sidebotham and Fenwick, 2019). The expereince(s) promote confidence and competence, enabling students to gain insight into the full scope of midwifery practice, and foster the development of woman-centred philosophy and practice (Carter et al, 2021; Gamble et al, 2020; Grey et al, 2012; McKellar et al, 2014; Rawnson, 2011). However, while many student's feel sufficiently prepared to work in continuity models, there were mixed feelings with regard to the desire to work within this model of care at the point of graduation (Carter et al, 2015). Many students experienced challenges with providing CoC, including finding a work-life balance and establishing boundaries with women in their care (Carter et al, 2015; Dawson et al, 2015; Grey et al, 2012; Rawnson et al, 2011; McLachlan et al, 2013). There are many variations in the provision of this educational model, that are likely to impact on experiences, learning, development of competence, and desire to work within this model of care.

Inconsistencies in the provision of CoCEs include variations in the model of care in which the continuity experience occurs, the way in which the education provider implements and supports the experience, and the underlying values and philosophy of the pre-registration curriculum (Ebert et al, 2016; Gamble et al, 2020; Sweet and Glover, 2013). These variations influenced how relationships, the central theme, are developed, experienced, and valued.

Relationships

A clear theme, present throughout the included literature, was the importance of relationships, with women and with mentors (as well as the wider healthcare team), for optimal working and learning within this model of care. Really knowing the woman and her wider circumstances was key to the development of critical thinking and woman centred philosophy and practice (Sidebotham and Fenwick, 2019). Through knowledge of the woman's individual needs and wider circumstances, students were stimulated to consider the impacts of decisions and interventions in a way that had not previously been facilitated through experiences of fragmented models of care (Rawnson, 2011). As relationships

develop, students become increasingly motivated to learn in order to provide care that meet the needs of women, rather than taking a tick box approach to care (Grey et al, 2013; Rawnson, 2011; Sidebotham and Fenwick, 2019).

'….*you really were the frontline person…you had to be informed*…" (Sidebotham and Fenwick, 2019)

'*I learned more knowing her story. The next time we saw her I responded to her needs rather than just a tick box list of what we should be covering. I was able to think outside the box because I really knew what was important to her*.' (Sidebotham and Fenwick, 2019)

They also become motivated and more able to advocate for women in their care:

'*I understood exactly what her choices surrounding her birth were. Therefore, you had a lot more ability to advocate for exactly what type of birth that each individual wanted*.' (Sidebotham and Fenwick, 2019)

In this way, the ability to form relationships with women provided a holistic learning experience, building confidence and autonomy, as well as developing a sense of professional identity (Gamble et al, 2020; Sidebotham and Fenwick, 2019; Sweet and Glover, 2013). Through relationships, students build their skills around women rather than the needs of the system, which was central to the development of a woman centred philosophy and sense of readiness for professional practice (Grey et al, 2012; Rawnson, 2011; Sidebotham and Fenwick, 2019).

However, for some students, relationships developed with women resulted in blurred boundaries in terms of work and home-life, as well as the potential to over-step boundaries of expected professional practice (Foster et al, 2021; McKellar et al, 2014):

'*I would be at home with my own children, but totally pre-occupied with evaluating and reflecting on my role at the woman's birth and the family's (and my) experience of it*.' (Foster et al, 2021)

The student-mentor relationship was also pivotal to learning for student midwives (Carter et al, 2015; Sidebotham and Fenwick, 2019). For some this relationship was highly beneficial, providing motivation towards deep learning from continuity experiences (Carter et al, 2015; Sidebotham and Fenwick, 2019). These positive experiences appear more likely within

continuity models of care and/or with continuity of mentor. In these situations, students developed high levels of trust in their mentor, which was key to the learning experienced through this relationship (Carter et al, 2015; Rawnson, 2011; Sidebotham and Fenwick, 2019).

'*… you don't have to worry about going to an appointment or going to a birth where you don't know the midwife and you have to speak to them prior about what you can do. You don't have to worry – it puts you at ease… it ensures you are moving forward rather than just standing still*.' (Sidebotham and Fenwick, 2019)

However, for other students, relationships were not optimal. Some students experienced difficulties communicating with women, reportedly due to their young age or lack of life experience (Foster 2021), or because they felt they were interrupting the midwife-woman relationship (Baird et al, 2021). Some students experienced difficult relationships with their mentor and the wider team, including not being informed about significant developments relating to the women in their care, and being left as an observer or feeling that their presence was an inconvenience (McKellar et al, 2014; Rawnson, 2011*;* Sweet and Glover, 2013). These experiences were disempowering for students and reduced confidence in their ability to provide effective care.

A suggested strategy to mitigate against these experiences, is the inclusion of confidence building sessions within the midwifery curriculum (McKellar et al, 2014). However, it is perhaps more important that students feel welcomed in their clinical placements, as relationships with mentors are likely to be critical to learning as well as safe practice (Rawnson, 2011). Several authors emphasise the importance of strong relationships between educators and placement areas, to ensure students are optimally supported through their clinical placements (Carter et al, 2015; Gamble et al, 2020; McKellar et al, 2014; Sweet and Glover, 2013). The development of a continuity coordinator role specifically for continuity placements and experiences has been suggested (McKellar et al, 2014). This may bridge the gap between education and clinical practice, as well as providing a form of structured support for student midwives.

Setting the standards

This over-arching theme incorporates three subthemes: 'a surface approach'; 'providing a foundation'; and 'curriculum consistency'. It represents the lack of evidence and guidance underpinning CoCEs for student midwives, resulting in highly variable approaches to the provision of this educational model, translating into various levels of engagement or disengagement with the provision of and desire to work within this model of care.

A surface approach

In Australia, a specific number of CoCEs are required to successfully complete the pre-registration programme, which poses a challenge for many and has the potential to inhibit engagement with these experiences, as well as with the other requirements of pre-registration education (Ebert et al, 2016; Grey et al, 2012; Grey et al, 2013; McLachlan et al, 2013; McKellar et al, 2014). Reportedly as a result of the numbers requirement, students may adopt a 'surface approach' to CoCEs, including resubmitting assignments, faking documentation, and adopting a tick-box approach to CoCEs, which is more about gaining numbers than learning how to be with women (Grey et al, 2013; McKellar et al, 2014; McLachlan et al, 2013). There are concerns that this approach is reminiscent of the task-driven approach of the standard, fragmented model of care; undermining the philosophy and intent of CoC (Ebert et al, 2016; Grey et al, 2013). In-line with the comments made by one student, instead of focusing on getting a certain number of women, the focus should perhaps be oriented towards the provision of quality care for each individual women:

'I love being able to share in the woman's experience of pregnancy and labour, I feel like we would be better served doing less CoCE, but with more required visits for each woman to actually show REAL continuity of care.' (Forster et al, 2021)

A significant challenge experienced by students was the ability to provide CoC, whilst also meeting the additional, and sometimes competing demands of the midwifery programme (Carter et al, 2015; Dawson et al, 2015; Foster et al, 2021; McLachlan et al, 2013; Rawnson, 2011; Newton et al, 2021). Challenges included the flexible working practices that sometimes come with this model of care, carrying a caseload along with standard clinical placements, and being on-call. This could exacerbate the surface approach described above,

and had a significant impact on family commitments, employment, and ability to meet course requirements.

'*There is no time off. It is particularly difficult to manage course work, clinical placement, lectures and tutorials, labs, antenatal appointments and postnatal appointments and being on call for births at the same time. Family, social life and work commitments suffer and at times I have struggled physically and emotionally*.' (Foster et al, 2021)

Providing a foundation

The rationale for providing CoCEs for student midwives has been variously described, including the provision of opportunities to work in partnership with women (Sidebotham and Fenwick, 2019); to experience and practice woman-centred care (Gamble et al, 2020); to develop a midwifery philosophy and professional identity (Sweet and Glover, 2013); and to enable transition to this model of care at the point of graduation (Carter et al, 2015).

However, there is a lack of evidence relating to the provision of CoCEs, in terms of intended pedagogy, learning outcomes, or forms of assessment required (Carter et al, 2015; Gamble et al, 2020). Ultimately, the intention of this educational model has not been clarified, and there is no evidence with which to guide and optimise learning for student midwives. As a result, approaches to the provision of CoCEs varies between countries and individual institutions, and students and academics are unclear about the intention, required outcomes, documentation, or optimal method of assessment of these experiences (Carter et al, 2015; Gamble et al, 2020). As a result perhaps, CoCEs are often seen as an additional part of the course, and one which students must manage themselves, rather than being seen as a primary method through which to gain core midwifery skills (Gamble et al, 2020; Grey et al, 2013).

An evidence-informed approach to CoCEs is needed to address these challenges. Research is required to establish the intent of the provision of continuity by student midwives, as well as the optimal educational strategies to support these experiences. This should translate into clear guidance relating to the requirements of education providers in midwifery standards for education, including the documentation, assessment, and learning outcomes required to successfully complete CoCEs (Carter et al, 2021; Ebert et al, 2016; Gamble et al, 2020).

Curriculum consistency

Once the educational intent of continuity experiences has been established and midwifery standards provide clear guidance in relation to the requirements for their optimal provision, education providers can build midwifery programmes around continuity experiences, rather than fitting them in (Gamble et al, 2020; Newton et al, 2021). In this way, programme philosophy should be based on the values of continuity, and this is consistent across the curriculum and translates into practice. This will be maximised through strong partnerships with placement areas, providing the opportunities to put an educationally developed woman-centred philosophy into practice. Providing continuity should be seen as the prime way through which to gain midwifery skills, and all other components of the curriculum should align and cohere with this central philosophy (Gamble et al, 2020). Such consistency across education and practice can enhance learning for students and is significant in the development of confidence, competence, and professional identity (Gamble et al, 2020; Carter et al, 2021). This will be enhanced through structured opportunities for meaning reflection in relation to continuity experiences (Grey et al, 2012; Gamble et al, 2020), which will promote reflexivity as well as the provision of transformative learning experiences.

This approach to education and practice may be enhanced by a flexible programme design that enables students to prioritise the women in their caseload and on-call commitments (Carter et al, 2015; Gamble et al, 2020; Sidebotham and Fenwick, 2019). 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 (Carter et al, 2021). The implementation of learning strategies such as a so-called 'continuity toolkit' developed by students (McKellar et al, 2014), may enhance engagement with and learning from CoCEs. This could be developed through an on-line platform by students, and would include information and evidence relating to continuity, details about how different teams function, as well as podcasts relating tips and experiences from midwives experienced in providing CoC through well-functioning, sustainable models of care. Such an approach may maximise the learning that can be gained through providing continuity, by facilitating engagement with the experience (Sidebotham and Fenwick, 2019). 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 (Carter et al, 2021). 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.

Conflict or coherence

Although policy stipulates the implementation of continuity models, for the majority of women the current situation is that care is provided in standard, fragmented models of care. As a result, most midwifery students have to practice and experience CoC within this system, where women may be cared for by several different healthcare professionals, and where the student is therefore under the supervision of different mentors. Furthermore, the philosophy of care that predominates within standard care may be at odds with, or inhibit the development of, woman-centred care (Grey et al, 2013). It may also present a barrier to optimal learning, and the development of confidence and competence (Ebert et al, 2016). Through providing CoCEs within a fragmented model of care, it is also unlikely that students will gain a realistic impression of the realities and practicalities of working within a continuity model, or that they will develop the full scope of skills to enable them to do so at the point of graduation (Ebert et al, 2016; Sidebotham and Fenwick, 2019).

Many authors have argued that the ideal situation for student, and the future of continuity models of care, is that students are placed within continuity models; both to gain their clinical experiences and to experience continuity (Carter et al, 2021; Gamble et al, 2020; Sidebotham and Fenwick, 2019). Immersing students within continuity models provides understanding relating to the practicalities of this model as well as the advantages for women, in terms of experiences and outcomes (Carter et al, 2021). Students placed within such models receive a holistic learning experience, where they build skills based on the needs of women (Baird et al, 2021; Sidebotham and Fenwick, 2019). Students also gain insight into the level of autonomy this model offers midwives, and often find that this increased autonomy extends to their own clinical practice.

'…..*it meant that with the caseload midwife I had a lot of opportunity to practice autonomously whereas on a shift you're always under the wing of the midwife. I found this aspect of the placement really beneficial for my own growth, confidence and independence*.' (Sidebotham and Fenwick, 2019)

Working within continuity models, students found they were practising 'all of their skills all of the time', working across the scope of midwifery practice, consolidating their skills and knowledge (Carter et al, 2021; Sidebotham and Fenwick, 2019). This was compared to standard placements where students can go for long periods without supporting a birth, or providing antenatal care (Carter et al, 2021).

'*You really were the frontline person for all the woman that you were caring for. You know they were constantly calling, texting, seeing you and asking questions. You had to be informed. You had to be able to answer their questions and give them the right advice*.' (Sidebotham and Fenwick, 2019)

Through working closely with their mentor, students were able to see how midwives managed all the women on their caseload and to question and reflect on the rationale for their decisions and actions (Carter et al, 2021; Sidebotham and Fenwick, 2019). They were also able to experience how caseload midwifery works in practice, and how midwives structured their practice and work-life balance, making this way of working sustainable. (Sidebotham and Fenwick, 2019).

'*You know seeing what midwifery appointments should be like I guess. What midwifery care should be like in an ideal world? That was invaluable*.' (Sidebotham and Fenwick, 2019)

'*Just the way the midwife that I was working with … she had young children that were going to school and I could see the autonomy of being able to plan your own caseload. I saw it as a more sustainable way of working than I thought it was. It gave me a lot of confidence that I could do it*.' (Sidebotham and Fenwick, 2019)

However, there were also challenges experienced when working within a continuity model of care. These included facing other members of staff who were unsupportive of CoC, and situations where the workplace culture was at odds with the requirements of CoC (Baird et al, 2021). For some, the transition from continuity placements to the hospital setting was

challenging due to the more medicalised nature of this setting, which was experienced as intimidating for some students:

'… to know how to ARM, to know how to get my VEs spot on, to know how to administer IV antibiotics and to know how to set up an epidural trolley. It wasn't about knowing how to facilitate normal birth… it was so intimidating …at times, I was almost scared to ask questions.' (Baird et al, 2021)

'… going back in there was just like going from a country town to smack bang in the middle of New York City. You were just inundated with everything and it was just - I think it knocked my confidence That was the bang, straight into birth suite, going 'Oh my God, I have to realign all my thinking again.' (Baird et al, 2021)

Furthermore, while students found placements within CoC models generally highly positive and valuable (Carter et al, 2015; Sidebotham and Fenwick, 2019), some were reticent to move directly into such a model at the point of graduation due to a perceived need to develop their skills further prior to doing so, and some students were unsure whether a work-life balance could be achieved at all (Carter et al, 2015; Carter et al, 2021).

'I love continuity of care, and feel that it is now engrained within my soul. However, I continuously see myself and the midwives I work with being overrun with unmanageable work/life/study balance, and I am unsure of how this will fit in to my life in the future.' (Carter et al, 2015)

It is interesting to note that these barriers to the provision of CoC are not lack of educational preparedness, but instead represent sociocultural barriers (Carter et al, 2021). In a survey carried out by Carter et al (2021), 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 (Carter et al, 2021).

Strategies to mitigate against and address concerns include information sessions prior to the recruitment of students onto midwifery programmes, so that they are aware of the realities of midwives' work (Foster et al, 2021); methods to establish professional boundaries are established in the curriculum, and strategies to establish a work-life balance are established

in continuity models of care (McLachlan et al, 2013); supportive structures to facilitate caseload placements (e.g., a continuity coordinator) (McKellar et al, 2014); and the provision of sessions from midwives working in well-functioning, sustainable caseload practices, who can advise students about the advantages and disadvantages of working in this way, as well as methods to optimise the flexibility it provides, to facilitate work-life balance (Carter et al, 2015). These actions can be complimented by partnership working, and the co-production of placement plans with CoC mentors, in order to maximise this significant opportunity for students (Carter et al, 2021).

Conclusion

The importance of placing midwifery students within continuity models, as a primary means of gaining their clinical skills, has been emphasised. While there are presently limited opportunities for this, as continuity models increasingly become implanted and established, it is critical that this opportunity is maximised. Clear guidance is required within midwifery standards for education so that the objectives, learning outcomes, and assessment requirements for continuity experiences are clear. Education providers require the resources to build the curriculum and its philosophy around CoC, and to build relationships and co-produce educational opportunities and placement experiences with clinicians. Supportive structures that encompass midwifery education are required, so that students are equipped with the resources to establish appropriate professional boundaries with women and can form effective educational relationships with mentors. Continuity of (effective) mentoring is required to optimise learning for students. When continuity experiences are maximised in this way, midwifery students learn through building their skills around women, to develop confidence and competence, and a woman-centred philosophy. Whether these experiences lead to the desire to work in continuity models remains to be seen. This is likely to require placement within optimally resourced and functioning placement teams; whilst at present is unclear how this should be achieved.

Chapter 3: Survey of students & midwives with experience of CoC

The Scottish Government (2017) 'Best Start' five year forward plan for maternity and neonatal services sets out a program of transformational change to the way maternity services are delivered in Scotland. Maternity care has traditionally been delivered in a fragmented manner, with different midwives providing care over the antenatal, intrapartum and postnatal periods. One of the aims of Best Start pertinent to these placements, is continuity of carer, where the underlying aim is that the same midwife will provide care over the childbearing continuum. This will involve a significant change in the provision of clinical placements for student midwives. Where previously placements were also structured according to a certain area or stage of maternity care, students placed within Best Start teams will now 'follow' women through their pregnancy journey within a continuity model of care. The implications of this include changes to the way in which students gain confidence and competence in clinical skills (NMC, 2019b), as well as potential challenges with time management and finding a work-life balance (Carter et al, 2015; Foster et al, 2021; Newton et al, 2021). Working within this model also has the potential to be highly rewarding in terms of personal and professional growth (Carter et al, 2015; Sidebotham and Fenwick 2019). It is essential therefore that the curriculum is structured to optimise this change in the provision of clinical placements for midwifery students.

This study took place at a Scottish university that offers both undergraduate (Bachelors degree) and postgraduate (Masters degree) pre-registration midwifery education. Students within these programmes undertake on-campus teaching blocks and approximately 2300 clinical placement hours over a three-year period. Students are also required to complete CoCEs from their 2nd year onwards, in order to develop competence in proving CoC. However, the establishment of continuity teams as a result of Best Start offers the potential for midwifery students to gain experience of providing CoC through placement within continuity teams. This may 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 (Baird et al, 2021; Carter et al, 2015; Sidebotham and Fenwick, 2019)

In response to the significant change in maternity care provision that has been proposed, it is essential that universities appropriately prepare student midwives for placements within the new Best Start teams, with curriculum conveying appropriate education to facilitate development of relevant, contemporary, evidence-based midwifery skills. This research is intended to develop understanding of the most advantageous curriculum strategies to prepare student midwives for optimal working within a Best Start maternity care team.

Aim

To explore experiences of factors within midwifery curriculum in relation to their effectiveness at preparing midwifery students for pre-registration clinical placements within new 'Best Start' and similar continuity models of midwifery care.

Objectives

(1) Identify student midwives' experiences of educational methods that facilitate or inhibit their effectiveness to work within the continuity model of midwifery care.

(2) Explore midwifery educators' and practitioners' experiences of student preparation to work within continuity models of midwifery care.

Methods

In order to develop understanding of factors within the curriculum that inhibit or facilitate the effectiveness of student working within and learning from continuity models of care, students from ENU and midwives globally were invited to take part in an online survey. Survey questions were developed using findings from the literature review as well as areas of the curriculum and/or practice that were identified by the supervisory team as relevant. Questions were focused mainly on the curriculum, and how well students' and midwives' felt the different aspects of the curriculum prepared students to work within continuity models of care. Questions differed slightly between the two surveys, reflecting the different populations and their relevant experiences (appendix C). Following demographic questions at the beginning of the survey, questions were a mixture of Likert-type, yes/no, and free-text questions (see tables in the following sections).

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

Data collection

Student midwives registered at ENU who had been allocated to a Best Start placement, and midwifery practitioners and educators with experience of CoC were eligible to participate; students under 18 years of age were not eligible to participate.

Student midwives were invited to participate through an invitation on Moodle, the educational platform used at ENU. This invitation was a poster (appendix D) detailing the nature of the research, that participation was voluntary and confidential, and contained an embedded link to the survey.

Recruitment of midwives was through the use of a similar poster, which was posted on the social media (Twitter and Facebook) accounts of the researcher as well as those of midwifery-related organisations that had consented to share information about the survey (including the Royal College of Midwives (RCM) and All4Maternity, a global online midwifery platform). An online survey was considered the most effective method of recruiting midwives globally. Continuity of care models are not widespread in the UK but have been implemented in Australia and New Zealand. An online survey also allows participants to complete at a time suitable for them and is easily accessible online. The poster detailed the nature of the research, the voluntary and confidential nature, and a link to the survey. Midwives who self-identified as eligible to participate could follow the link on the poster.

The online survey was hosted by Novi-survey, the platform utilised and recommended by ENU for this purpose. Once participants were directed to the survey, they were required to read the included participant information sheet, which included further detail relating to confidentiality, and to fill out a consent form, prior to obtaining access to the survey (appendix E). There were further consent questions at the end of the survey, with the result that participant data could not be included where this final step had not been completed.

Data analysis

Data from the Novi-survey platform were converted onto an Excel file. Quantitative data were analysed using descriptive statistics and the results are presented in the tables below.

Qualitative data were assembled into themes using reflexive thematic analysis (Braun and Clarke 2020a), from a critical perspective as previously described (Cannella and Lincoln, 2015). The use of reflexive thematic analysis recognises emphasises the subjective role of the researcher in the development of themes. Separate analysis by other members of the research time are not viewed as desirable when utilising this approach (Braun and Clarke 2020b). Where possible quantitative data were then integrated into the themes, in a convergent qualitative synthesis (Hong et al, 2017; Pluye et al, 2014).

Two distinct approaches to the integration of qualitative and quantitative data have been identified in mixed methods studies (Hong et al, 2017; Pluye et al, 2014). In a convergent synthesis, the integration of qualitative and quantitative data occurs during data collection or/and data analysis. This approach requires the conversion of either qualitative or quantitative data to allow their integration. Qualitative data may be converted into quantitative data, in a convergent quantitative synthesis, or quantitative data can be converted into qualitative data in a convergent qualitative synthesis (Hong et al, 2017; Pluye et al, 2014).

In a sequential synthesis, the collection and analysis of one type of data occurs after and is informed by the other. A sequential synthesis may be exploratory, where qualitative data collection and analysis proceeds first, and informs the approach to the collection and analysis of quantitative data. Here, quantitative findings are utilised to confirm and generalise qualitative findings. Where quantitative findings inform the collection and analysis of qualitative data, this is a sequential explanatory approach, and the qualitative findings are used to interpret the quantitative results. This sequential approach is more appropriate where the whole study is mixed methods, with the separate collection of quantitative and qualitative data, therefore a convergent synthesis design was more appropriate for the analysis of survey data.

Results

The survey was live between June 2019 and September 2019. Although 44 student midwives and 99 midwives responded to the survey, data are included for 22 students and 49 midwives only, as the remaining surveys were incomplete in various ways, including many where the final consent questions had not been answered. There were student respondents

from all year groups and from both the bachelors and masters programmes. While student respondents were necessarily from ENU, midwife respondents were from various countries, including Scotland, England, Australia and New Zealand. Approximately half of the midwifery respondents had a role in, or had previously worked within higher education. Participant demographics are documented in tables 2 and 3. Responses to the student survey are documented in table 4.

Table 2. Student demographics

	n	%
Year of study/programme		
First year	6	27
Second year	8	36
Third year	8	36
Bachelor of Midwifery	14	64
Masters of Midwifery	8	36
Age range		
18-25	8	36
26-40	22	64
>40	0	0

Table 3. Midwife demographics

	n	%
Length of midwifery experience		
0-5 years	11	23
6-15 years	12	25
>15 years	25	52
Age range		
20-35	10	21
36-50	20	42
>50	18	37

Table 4. Students and midwives' responses to the survey questions				
	Students (%)		Midwives (%)	
	Yes	No	Yes	No
Does the programme effectively prepare students for placement within continuity models of care	77	18	35	65
Does the programme effectively prepare students to interact with women	91	5	60	40
Does the programme enhance time management skills for students	82	14	N/A	N/A
Should there be a specific emphasis on relationships within the curriculum	N/A	N/A	96%	4%
Would greater flexibility of programme delivery be useful	73	23	90	4
Would a core year within the hospital be beneficial	59	41	60	35
Did you have sufficient opportunity to practice core clinical skills within the continuity placement	82	14	N/A	N/A
Would a continuity toolkit be useful for preparing to work in continuity models	95	5	96	2
Would a continuity coordinator be beneficial	91	9	94	6
Would reflection be more beneficial if held: -				
Within the placement site and including members of the continuity team	5%		6%	
In university with the rest of their cohort	32%		4%	
A combination of both	64%		90%	
Would it be more beneficial if reflection was held: -				
Every fortnight	0		37%	
Monthly	36%		50%	
Once every term	64%		6%	

Among students at ENU, 77% of participants felt that the midwifery programme effectively prepared them for placement within continuity models; 91% felt that they were sufficiently prepared to interact with women; 82% felt that the programme had enhanced their time management skills; and 82% felt that they had had sufficient opportunity to practice core clinical skills through their placement within the continuity team (figure 2). There was a notable difference in students' perceptions of how well the midwifery programme prepares them for placements within continuity models compared to midwives' perceptions, with 77% of students stating that the midwifery programme did effectively prepare them for this type of placement, compared to 35% of the midwifery respondents. This difference in perception is further emphasised in the next survey question which explores how well the programme prepares students to interact with women. While 91% of students felt that the programme does effectively prepare them to interact with women, only 60% of midwives were in agreement with this. These differences likely reflect differing views on what is required for effective working within a continuity model of care and forming professional relationships with women, which is further explored in the qualitative data analysis.

When asked about satisfaction with their placement within a continuity model, students' responses were equally spread in terms of satisfaction-dissatisfaction rating, however, when asked if they had experienced any challenges with integrating into the continuity model, there appear to have been significant challenges, largely relating to inconsistency in skill development, shortage of staff, lack of continuity of mentorship, and poor staff morale. These challenges may have been due to, or exacerbated by, the relatively new status of models within which some students were placed.

'Mixed skills, not gaining a steady set of skills and confidence before moving to a new area.'

'Its 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 are.'

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

Both student (73%) and midwifery (90%) respondents felt that increased flexibility of programme delivery would be beneficial, and there was strong support among both groups

for a continuity toolkit and continuity coordinator, with over 90% of respondents in agreement that these would be beneficial within the curriculum (figure 2).

When asked about going on call for births, midwives and students differed in their responses, with 77% of midwifery academics stating that this should be a compulsory aspect of the midwifery programme, whilst 73% of student midwives felt that going on call should be optional (table 5). However, 87% of students stated that they would go on call for births, for women in their caseload (figure 2).

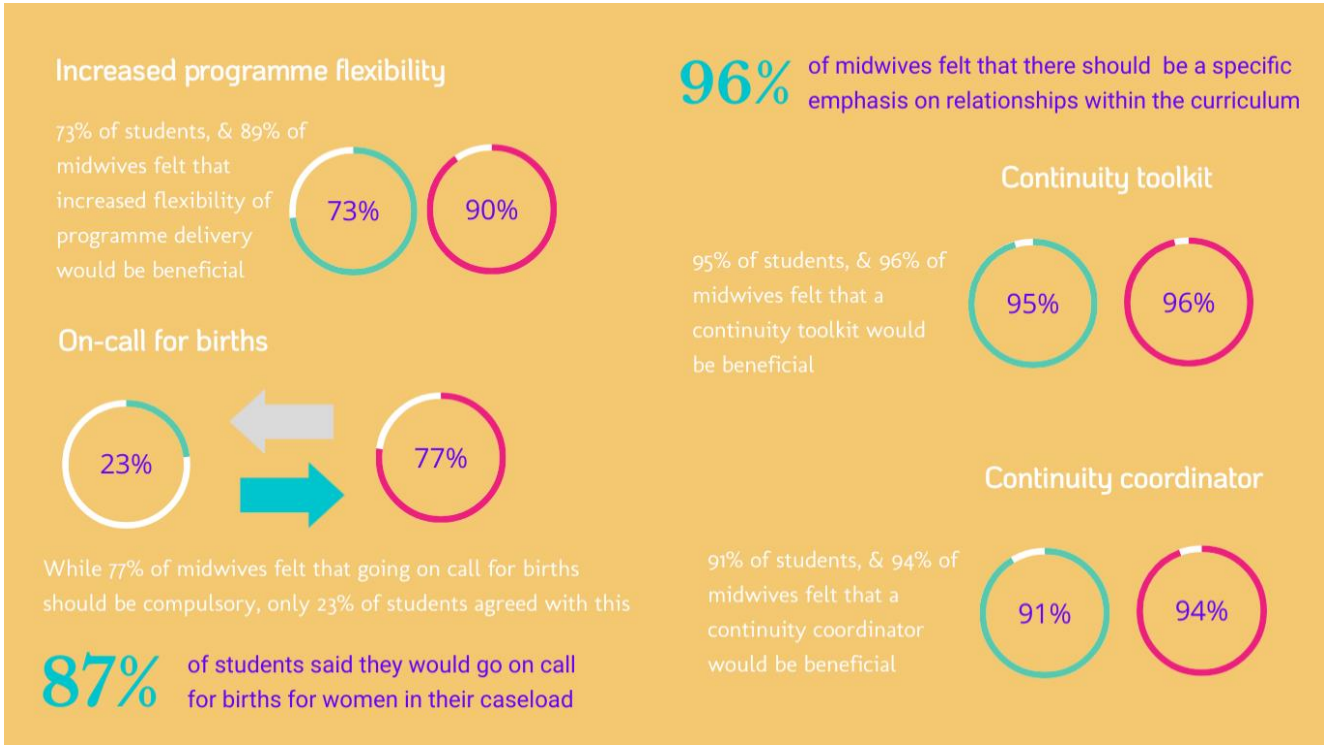

Figure 2. Results of the quantitative analysis

Table 5. Student and midwives' perspectives on students going on call for births		
	Students (%)	Midwives (%)
Should students go on call for women in their caseload?		
Going on call for births should be compulsory	23	77
Going on call for births should be optional	73	23
Students should not go on call for births	4	0

Midwives and students were also asked whether they felt that a core year within the hospital would be beneficial for students placed within continuity models. Slightly more students (59%) and midwives (60%) felt that a core year within the hospital would be beneficial, rather than not having this core hospital year, and for most second year was stated to be the best time for this placement. However, the free text comments suggested that some midwives feel that placement within the hospital setting may have an adverse impact on students' skill development, philosophy, and desire to work in continuity models of care.

'*No I believe working as core staff reduces the new graduate desire to work in continuity of car and new graduates consolidate skills and knowledge better and have better support when they work in small groups like MGP or caseload practice*.'

'Work based learning in a fragmented model of care can confuse the picture and delay students' ability to apply this learning in a continuity context as working solely in hospital rotation placements can lead to institutionalisation. Students can learn from role models who do not practise within this model and also who may be very negative about this way of working which can impact students.'

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 that this may be particularly important prior to being placed 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 of all scenarios that may be encountered prior to going out into placement.

'It would have been useful to have had practical sessions surrounding managing and supporting a woman in labour before going into that environment without having done that before.'

'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.'

'…also doing more of the scenario workshops in skills lab in first year would be good.'

'All aspects are relevant as you are providing care throughout the full journey for the woman and her family.'

For midwives, it was important that students developed skills that are central to woman centred care, including informed choice and the ability to offer care in an unbiased manner, and accept decisions made by women. Many mentioned the importance of providing evidence-based care and being able to critique the evidence, as well as students being able to evaluate their own practice. They also discussed aspects of care that may be particularly pertinent to caseloading models, including the potential for placement with independent midwives and more experience of home births, as well as leadership skills, attendance at multidisciplinary team meetings, and experience in managing a caseload of women. Time management and boundary setting strategies were also frequently discussed as being essential for working within continuity models of care. One midwife emphasised the importance of the acquisition of skills required for autonomous practice within a caseload model during undergraduate education, rather than expecting these skills to be gained after qualification.

'Having time with midwives working in continuity models, watching ,learning and becoming involved in the care of women and seeing it as the normal role for a midwife to practice, having a very sound knowledge of normal physiological processes and a woman centred philosophy is vital'

'…research and critiquing evidence to develop your own practice and ensure women are making informed decisions, not just following policies which may be out of date.'

'Skills that enable the midwife to autonomously provide care in a continuity setting should be taught in universities rather than as additional courses post grad. E.g. suturing, neonatal examination, IV cannulation, medication prescription etc.'

Both students and midwives included certain 'soft skills' as important for practice within continuity models of care, including active listening and communication skills, reflection and resilience. Results from the quantitative analysis demonstrate that reflection both within placement areas and along with the rest of the midwifery team may be beneficial to implement, in order to enhance on-campus reflection opportunities. A few students expressed the desire for more fundamental knowledge, such as orientation to the hospital, knowing how to answer basic questions women were likely to ask, and the role of the student within the multidisciplinary team. One student mentioned that learning how to form professional relationships with mentors may have been beneficial.

It's no ordinary job

Some students appear to have struggled with certain aspects of their continuity placement, including managing time and balancing workload around the placement. However, for some, challenges seem to have been due to confusion around what they were supposed to be doing and/or lack of continuity of mentorship or placement site, resulting in concerns amongst students that they were not getting sufficient opportunity to develop or consolidate their clinical skills. These challenges appear to have been exacerbated by the fact that some of the models were very new and therefore were still in the early stages of establishment, as well as the COVID-19 situation at the time. 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.'

'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.'

'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.'

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. It was suggested that this could be facilitated through sessions provided by midwives who have worked within successful CoC models. Midwives also felt that students should be assessed on their knowledge relating to continuity and undertake reflections and presentations relating to their experiences.

'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.'

Student midwives provided practical examples of strategies that might help gain insight into the practicalities of working within CoC models, such as the role of the student within the model, examples of how midwives might structure their day when providing caseload care, and competencies directly associated with caseloading. The need for increased coherence between education and practice was discussed by some students, in terms of providing clarity to clinicians of the requirements of documentation, and more coherence between what students are taught and what they are expected to know in placement.

'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.'

When discussing the need for a core placement within the hospital, some of the midwives raised the point that caseload care should be viewed as the core way that midwives practice and that supporting physiological birth should be standard midwifery care. They felt that hospital placements could 'institutionalise' students, potentially delaying learning relating to

continuity models, as well as reducing the desire to work within this model of care. It was however noted by one midwife that the skills and practices of an autonomous continuity midwife are skills that all midwives should have, both so that they are able to optimally work within continuity models, and so that they are able to advocate and provide woman-centred care within standard, fragmented models of care.

'The skills above are important for all mw practice - there is a problem about promoting a 'them and us' mentality. The biggest difference in CoC is higher autonomy and a real focus on woman-centred care but these should be skills all midwives have & those who end up in wards my need additional tools to help the maintain this in the hierarchical system in hospital.'

One midwife emphasised the importance of recruiting students who want to work within continuity models, due to the commitment required to sustain 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.'

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 over the childbearing period. One midwife suggested that continuity placements should enable students to support women all the way through their pregnancy, birth and postnatal period, although recognised that this would be challenging. Both students and midwives recognised the need for increased flexibility in the delivery of lectures and other educational strategies, on 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.'

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

A strong theme running throughout the survey was the need for continuity of mentor. Many students appear to have experienced placements where they were supervised by multiple different 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 or being set as core staff.'

'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.'

'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.'

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.'

However, it was also recognised that students can have negative student-mentor relationships and that support needs to be in place to mitigate against this. It was also acknowledged that students can be strongly influenced by the attitudes and values of their mentors as well as the wider maternity team. For some, this influence had, or was perceived to have, a negative influence on students, where midwives could have strong views against the implementation of continuity and this model of care in general. Many of the midwife

participants emphasised 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.

'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.'

'If continuity is to be upheld and embedded within the maternity care services, the negative perception that is sometimes conveyed through fear, mistrust or previous bad experience, needs to be explored and put on the table for discussion during class and reflection.'

'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.'

'The model of continuity has so many potential benefits for women and midwives, but it can be very challenging. If it is possible within the curriculum to create space for really listening to the students and findings practical and maybe creative ways to address concerns and enable students to find their way while being able to stand strong against those that try to undermine.'

Discussion

Many of the findings of the survey reflect those of the literature review, including the need to prioritise continuity of carer within the curriculum, with theory and assessment relating to this model of care, and that providing CoC should be viewed as the primary method through which to gain midwifery skills (Gamble et al, 2020). Many of the participants felt that flexible programme delivery would be beneficial, which can be implemented more seamlessly than previously may have been envisaged, due to the prioritisation of online methods through the COVID-19 pandemic (Carter et al, 2021).

Many students at ENU said that they would go on call for women in their caseload, which is perhaps at odds with the literature review as well as the wider studies relating to continuity of carer. However, it is unfortunately unclear, due to the question asked, whether students meant that they would go on call for women within their caseload of women within their CoCEs (usually 2-5 women at ENU), or whether this response referred to women withing their caseload as part of their practice placement. However, this is a positive response, although most students felt that going on call should not be compulsory, which is an integral aspect of most continuity models.

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. 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 (Carter et al, 2015; Gamble et al, 2020; Sweet and Glover, 2013). Students also felt unsupported at times and that there was often confusion around what they were supposed to be doing. Many 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 transformational for learning and professional development within CoCEs (Sidebotham and Fenwick, 2019), 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 evident within the data.

There was strong agreement among both midwifery and student respondents for the implementation of a continuity coordinator role and the development of a continuity toolkit (McKellar et al, 2014). These strategies may address some of the above findings and challenges. A continuity toolkit may promote active engagement with learning and would include detail relating to the nature and expectations of placement. The student-led development of several aspects of the toolkit, including detail relating to the theory of continuity, could provide an assessment strategy. A continuity coordinator could provide support for students and clarity and consistency relating to expectations, for education

providers and clinicians. However, further strategies are required to embed the philosophy of continuity within the curriculum and to optimise coherence between theory and practice.

When asked about the education requirements for clinical placement, midwife participants focused on woman centred care and the ability to provide evidence based informed choice. The provision of evidence based care is central to the philosophy of continuity and is directed by midwifery standards and maternity policy (NMC, 2019b; Scottish Government, 2017). However, the ability to find and utilise the best available evidence is a particular challenge for both students and practising midwives, where there is often a plethora of evidence of variable quality, and significant challenges associated with assessing this due to the time-constraints synonymous with midwifery practice. Furthermore, while woman centred care supposedly forms the foundations of midwifery philosophy and of quality midwifery practice (Fahy, 2012; RCM, 2014; RCM, 2016; WHO 2018), there is a significant lack of consistency as to what constitutes woman centred care (Crepinsek et al, 2021; Brady et al, 2019; Davis et al, 2021). As a result perhaps, it is unclear how best to facilitate the acquisition of either of these skills through midwifery education (Brady et al, 2019; Carter et al, 2018; Crepinsek et al, 2021).

Student participants reported challenges relating to finding a work-life balance and acquiring appropriate skills within the model that they were placed. It is unclear whether this was related to features of the particular team and/or lack of continuity of mentorship, or a wider challenge with placement within continuity models. Although placement within a continuity model has been suggested to address some of the challenges associated with learning to provide CoC (Sidebotham and Fenwick, 2019), some students experience difficulties establishing a work-life balance within this model and find that the working life of their midwife mentors discourages them from working within this model of care (Carter et al, 2015; Carter et al, 2021). This may be a particular challenge where teams are new and establishing themselves, which provides extra challenges, including confusion around duties and organising caseloads (Carter et al, 2015), or where models are not sufficiently resourced to function in ways that are beneficial for midwives (Carter et al, 2021; McInnes et al, 2020).

However, hospital-based midwives with experiences of students trained within a CoC model argue that placement within CoC models provide insufficient opportunity to develop the appropriate skills for professional practice (Gierke and Zupp, 2015). They further emphasise

that a focus on continuity is detrimental to the acquisition of other clinical skills, particularly those required for practice within a hospital environment (Gierke and Zupp, 2015). In contrast to the midwifery respondents in the current survey, students at ENU prioritised gaining theoretical knowledge and practical experience relating to high-risk care, clinical scenarios, and obstetric emergencies, in order to prepare for practice, which may reflect this institutionally derived discourse. In relation to this, some of the midwife participants appear resolute that students should not undertake placements within a hospital setting, as this was seen to inhibit the development of the skills and philosophy required to work in a manner that aligns with the values and priorities of CoC.

The hospital environment is viewed as being at odds with continuity and woman centred care, where rather than being 'with woman' and providing individualised care, the predominant philosophy is 'with institution' and the provision of standardised care (Hunter, 2004; O'Connel and Downe, 2009). The perspectives of student midwives may be profoundly influenced by this environment, where they can experience the provision of mechanical, protocol-based care (Arundell et al, 2017; Davis and Coldridge, 2015). Students may be particularly vulnerable in this environment, with no choice but to acquiesce to poor care and to conform in order to achieve competencies, and to internalise dominant norms in order to be accepted into the profession (Arundell et al, 2017; Hunter 2005).

It is clear therefore that the hospital environment is not ideal where the aim is to develop midwifery skills that prioritise the needs of individual women. However, midwifery students require the acquisition of skills that enable them to provide care for women with complications; opportunities which are not frequently provided within many continuity models of care. The prioritisation of hospital placements and the skills required to work within a hospital environment, however, are the result of this being the predominant setting for birth, despite evidence to suggest that alternative models and settings may result in less intervention (Homer et al, 2019). The provision of more out of hospital settings, as directed by maternity policy (National Maternity Review, 2016; Scottish Government, 2017), may shift discourses towards the prioritisation of skills that are more aligned with woman centred care. Student placements within 'all risk' continuity models may mitigate some of the above concerns in the meantime.

Conclusion

It is clear that there have been challenges associated with student placements within the new continuity models within ENU placement areas. It is unclear whether these challenges are due to the newly established nature of these models, the structures supporting their establishment, or the model of care per se. The main challenges appear to relate to acquiring what are felt to be appropriate skills and continuity of mentor, whilst midwives were mainly concerned about hospital placements which were seen to distract from developing skills and philosophy that relate to woman centred practice.

While student participants at ENU appear to feel well-prepared educationally for placement within continuity models of care, this can only be surmised through the questions that were asked in the survey, in relation to time management skills, ability to interact with women, and overall preparation for placement in continuity models. The free text questions provide examples of further theoretical and practical preparation that would be desirable to students, largely relating to clinical emergencies and caring for women with complications. Midwife participants were largely focused on preparation in terms of knowledge around physiological processes and woman centred care, although many examples were provided for the transition to practice, including leadership skills, multidisciplinary communication, and other skills required to manage a caseload of women. As one student noted, '*it's all relevant*', and everything cannot be taught prior to the initial placements. However, this may be counterbalanced by continuity of mentor to enhance learning, implementation of a continuity coordinator, and strong links between education and practice. This will ensure that all stakeholders are invested in the learning requirements and professional development of the future midwifery workforce.

Chapter 4: Bringing findings together from a critical perspective

In this chapter, findings from the literature review and survey are discussed from the perspective of critical theory, which seeks to understand how institutional structures construct societal values and beliefs, as well as individual experience and practice (Canella and Lincoln, 2015; Howell, 2013; Thomson, 2017). Critical theory rejects singular truths, as claims relating to phenomena are understood to come from a particular perspective, shaped by time, context, and sociocultural influences. With empirical research, knowledge is recognised as being the result of the interactions between researcher and participants; in both primary and secondary synthesis methods, knowledge is understood to be dependent on the interpretive lens of the researcher, which is also socially constructed. Reflexivity is central to this. Instead of 'suspending' the social frames that shape interpretation, these are reflected on and analysed in relation to the research.

Critical perspectives recognise the influence of power in the construction and maintenance of sociocultural discourses and how individuals come to accept and collaborate in institutionally propagated norms (Howell, 2013). Within these power structures, the knowledge of privileged groups is legitimised as valid, whilst that of marginalised groups is subjugated in order to protect and maintain the status quo (Canella and Lincoln, 2015). Whilst change may appear unthinkable, a critical perspective, through understanding the social construction of such realities, creates space for change (Howell, 2013).

Summary of findings

Continuity of carer improves outcomes and experiences for women (Allan et al, 2019; Homer 2017; Sandall et al, 2016) and provides a woman centred learning experience for student midwives, that can result in the growth of confidence and competence, as well as professional identity as a midwife (Baird et al, 2021; Gamble et al, 2020; Sidebotham and Fenwick 2019). Providing CoC is valued by students by students and midwives, and some thrive within this model; however, others struggle with the on-call nature of the job and with finding a work-life balance, due to competing demands and flexible working arrangements (Carter et al, 2015; Dawson et al, 2015; McLachlan et al, 2013; Newton et al, 2021). Continuity of mentor has been found to be key to maximising engagement with and

learning from continuity experiences (Carter et al, 2015; Rawnson, 2011; Sidebotham and Fenwick, 2019).

Some of the above challenges may be associated with the way that the particular model has been implemented and functions, where structural and/or organisational support is sub-optimal (Carter et al, 2021; McInnes et al 2020; Pace et al, 2021). In these situations, the workload and dairy of midwifery mentors, as well as the experiences of students, will be negatively impacted (Carter et al 2021). Students can also feel alienated or conflicted when they are faced with colleagues that are unsupportive and espouse negative beliefs relating to the model of care, and the conflicting philosophy of the hospital environment can be challenging and alienating for students (Baird et al, 2021). Some may acquiesce to these alternate discourses (Arundell et al, 2017), and some may be deterred from working within continuity models as a result of their experiences (Carter et al, 2021).

Conflicting ideologies/emotion work

The task-oriented, standardised, approach to care that predominates within hospitals conflicts with the philosophy and requirements of continuity, including autonomy and flexibility that enables the provision of individualised care (Bradfield et al, 2019; Hunter 2004). This becomes particularly apparent when students or midwives who are providing continuity have to function within a hospital setting, where autonomy is limited, and care is provided according to protocols rather than considering women's needs and wider circumstances. As there is little room for independent thinking within this environment, placements within hospitals may stifle the development of essential skills for students, such as the development of critical thinking (Coldridge and Davis, 2017). These conflicting ideologies can also result in cognitive dissonance and emotion work (Hunter, 2004), which can be a constant source of distress for midwives providing CoC, where this philosophy predominates and drives organisational and institutional structures and support.

A robust programme philosophy that aligns with the values of continuity may enhance learning from continuity experiences and has the potential to challenge these alternate discourses (Gamble et al, 2020; Newton et al, 2021). In order to provide this however, there is a need to identify the intention, the required learning outcomes, and optimal assessment strategies for CoCEs (Grey et al, 2013; Tierney et al, 2017). Findings across several papers

suggest that key objectives may include the building of skills around women, and across the scope of midwifery practice, to develop a woman centred philosophy and practice (Carter et al, 2021; Tierney et al, 2017; Sidebotham and Fenwick, 2019). Indeed, the provision of woman centred care is a characteristic feature of practice for students and midwives working within this model of care (Bradfield et al, 2019; Browne et al, 2014; Carter et al, 2021; McInnes et al 2021; Sidebotham and Fenwick, 2019).

Central constructs of woman centred care include the provision of care that is tailored to individual needs, that promotes positive experiences, and that is 'with woman' (Bradfield et al, 2019; Davis et al, 2021). Although woman centred care is often viewed as foundational to quality midwifery practice (RCM, 2014; RCM, 2016), a recent documentary review of professional standards found that only 3.5% of professional documents include the phrase woman centred care (Crepinsek et al, 2021). Furthermore, there is a lack of consensus around precisely what woman centred care encompasses and no formally accepted definition to guide the education or provision of this practice (Brady et al, 2021; Crepinsek et al, 2021). As a result, the occasional use of this term within guidance may have little or no impact. Research is needed to develop consensus around what it is to practice woman centred care, and how this is taught and developed through midwifery education.

While CoCEs provide opportunities to provide care aligned with woman centred care practices, there is insufficient evidence to optimally complement this through the theoretical component of midwifery education (Brady et al, 2019). When woman centred care is firmly conceptualised within professional guidance and is foundational to midwifery education, this may provide the necessary endorsement for the provision of this type of care regardless of environment (Crepinsek et al, 2021).

The 'active ingredient' of CoC

Where continuity models are provided with the appropriate structural and organisational support, several aspects of this type of care have been identified as central to the improved outcomes and experiences. While continuity and therefore 'knowing' women has been identified as important for outcomes such increased disclosure and early recognition of abnormalities, factors other than those directly related to the relationship and knowing women have been identified as being at least equally as important (McCourt and Stevens,

2009; Rayment-Jones et al, 2020). These include the provision of autonomy and flexibility for midwives, which enables the provision of care that meets women's (and their own) needs, rather than having to work fixed shifts and according to tasks that require to be completed (Lewis et al, 2017; McCourt and Stevens, 2009; Rayment-Jones 2020). It is recognised however, that in many settings, a significant change in maternity culture would be necessary to provide the required autonomy and control to midwives, to enable the provision of such care (Lewis et all, 2017).

Where midwives are afforded the support to work in ways that enable the provision of woman centred care, which includes working with like-minded colleagues (McAra-Couper et al, 2014), there are significant benefits to be had (Hunter, 2004; McCourt and Stevens, 2009; Rayment-Jones et al, 2020). Where there is congruence between the ideals of midwifery and the reality of practice, although work may be challenging, midwives find that it is highly rewarding – that they can be a midwife (McCourt and Stevens, 2009). It is essential however to maintain appropriate professional boundaries, in order to support a work-life balance and protect against burnout (Crowther et al, 2016; Hunter et al, 2006; McAra-Couper et al, 2014).

For some midwives the emotional investment and rewards provided when working within this model may provide sufficient motivation that going on call for birth does not present a problem, and may in fact be a source of much joy:

'*You are with them for all that time and then miss out at the end – you've missed the bloody party! That's what I feel*.' (McCourt and Stevens, 2009)

However, this is unlikely to be the case for all midwives. For many the on-call nature of this model represents a significant deterrent from working in this way, and is a likely source of some of the resentment oriented towards its implementation (Dawson et al, 2018; Hollins Martin et al, 2020; Newton et al, 2021). One suggested solution to this is the screening of potential student midwives, to assess whether they are able to fit their lives around this way of working (Foster et al 2021). However, it is unclear whether the provision of intrapartum care by a known midwife is a necessary component of CoC (Green et al, 2000).

Furthermore, it may not be continuity *per se* that results in the improved outcomes with this model of care (Green et al, 2000). Instead, it may be that it is the type of midwife that

choses to work within this model (Allen et al, 2017; Rayment-Jones et al, 2019), or the philosophy that results from increased flexibility, time, and autonomy, that facilitate ways of working that align with women centred care. It may be therefore, that there are aspects of CoC (such as going on call for birth?) that are less necessary when organisational structures provide midwives with the flexibility and autonomy to provide woman centred care (Green et al, 2000; Pace et al 2021). Instead of strategies such as screening potential students to assess whether they are able to fit their lives around CoC (Foster et al 2021), there is a requirement to determine whether these are the essential aspects of CoC that enable midwives to provide woman centred care.

It is appropriate that midwifery is '*no ordinary job*', but students and midwives should not have to go '*above and beyond*' to fit around it (Green et al, 2000). Rather the system may have to provide the organisational structures that support what is essentially the essence of midwifery, rather than midwives working within a system that ultimately is barrier to woman centred care.

Deconstructing dominant discourses

Within the current system however, the most likely way that students can learn to provide care that meets the needs of individual women, is through placement within well-functioning continuity models of care. It is important therefore, that within current structures, students are facilitated to maintain a position that is 'with woman', to mitigate against the conflicting ideologies that pervade different maternity settings (Hunter 2004). One suggested approach is a focus on these complexities within midwifery education (Hunter, 2006; Coldridge and Davis, 2017). This would provide the opportunity to deconstruct prevailing discourses, so that the associated conflicts are not perceived as personal failings, whilst also creating the space for change.

One suggested strategy to counteract these discourses is the provision of opportunities for structured reflection (Bass et al, 2017). Reflection is central to midwifery practice and to personal and professional development (Bass et al, 2017; NMC, 2019b). It supports learning from practice experiences, providing the opportunity to integrate existing knowledge with new insights, and can lead to a shift in understanding and new ways of perceiving challenges and experiences (Bass et al, 2017; Sweet et al, 2019). The ability to reflect is not automatic

however. It requires analytical skills and self-awareness, which may need to be cultivated as an inherent component of midwifery education (Gallagher et al, 2017; Sweet et al, 2019). This may be particularly true of deeper levels of reflection, which require critical thinking and reflexivity for consideration of the values, beliefs and assumptions that impact upon experience, as well as the socio-political context in which practice is situated (Bass et al, 2017). This level of reflection is required to envisage and enact change in practice (Bass et al, 2017), a requirement for midwives at point of qualification (NMC, 2019b).

The Bass model of reflection may be a particularly useful and relevant approach in this context (Bass et al, 2017; Sweet et al, 2019). This model takes a structured and staged approach to cultivating reflective and reflexive capacity and may be used for both written and group reflection within a practice-orientated learning community (Bass et al, 2017).

There is a need 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 central tenets of woman centred care have been established, student learning should be constructed around associated learning outcomes. A 'graduate attributes' model (Cummins et al, 2018) 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 central to the philosophy and practice of graduates (Crepinsek et al, 2021; Cummins et al, 2018).

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.

Proposed research

Research is required in several areas in order to align this approach with policy and standards for practice (NMC, 2019a; Scottish Government, 2017). This should begin with an evidence synthesis to direct the provision of clear guidance within midwifery standards, for the optimal provision and assessment of continuity of carer within midwifery education. This should be accompanied by a systematic review and documentary analysis to provide consensus around and a definition for the provision of woman centred care. This will require

input from stakeholders including service users, to inform the preferred terminology for this form of midwifery care. Evidence will then be required to inform optimal strategies through which to theoretically guide woman centred philosophy and practice.

The provision of evidence-based care is central to maternity policy, yet there is a lack of evidence to guide educational preparation for this. Research is needed to assess how midwifery students can be equipped with the appropriate skills to appraise the often vast evidence relating to a particular topic, and to utilise this in a way that considers and is congruent with individual needs and preferences (Carter et al, 2018). Finally, research is required to inform effective and philosophically congruent ways through which midwifery students can acquire the broad set of skills required for professional practice.

Conclusion

There are many challenges associated with the provision of continuity models that appear to emanate from inappropriate organisational and structural support. Placing students within poorly supported models is unlikely to provide an optimal learning experience or promote a desire to practice in this model following qualification. A key attribute of placement within continuity models is the ability to witness, practice and develop, skills associated with woman centred care. However, it is unclear whether this is through continuity per se, or the flexible, autonomous practice facilitated through placement within well-functioning models of care. The development of a woman centred philosophy and the practices associated with this may however be set-back through placement within a hospital environment. Research is required to establish the essential aspects of continuity for improving outcomes and experiences; to establish a definition for woman centred practice; and to explore how woman centred practice can be promoted within student midwives, in order to counter dominant discourses regardless of model of care.

Recommendations and conclusion

The two-phase approach to this research has been useful in informing two different perspectives. The literature review emphasised the need to prepare students with regard to the intent and expectations of continuity within the curriculum and to establish a related philosophy across the programme and to practice (Gamble et al, 2020; Tierney et al, 2017). It also highlighted the need to prioritise continuity of mentor (Carter et al, 2015; Sidebotham and Fenwick, 2019) and to otherwise ensure students are supported through strategies to establish professional boundaries and strong education-practice partnerships (Foster et al 2021; McLachlan et al, 2013; McKellar et al, 2014). The suggested continuity toolkit and continuity coordinator appear useful to complement these strategies (McKellar et al, 2014).

The literature review also highlighted a significant research gap relating to continuity experiences for midwifery students from the UK. There is also a lack of evidence from New Zealand, where this model of care is standard for most women. However, the accepted nature of continuity within the New Zealand maternity system may account for the lack of studies from this setting given the terms used in the literature search. Studies from New Zealand relating to midwifery education more generally may be relevant to inform the optimal preparation of midwifery students for CoC, however, these appear to be relatively few in nature, given the ubiquitous nature of CoC and the renowned nature of the New Zealand maternity system.

The survey results confirmed several of the findings from the literature review, including that a continuity coordinator and toolkit would be advantageous within the curriculum. However, the survey emphasised that continuity occurs within a complex system that consists not only of the theoretical component of the midwifery curriculum. Experiences and learning are very much impacted by the practice environment and discourses within and around it (Hunter 2004; Davis and Coldridge, 2015), findings that were present to some extent within the literature review but that were brought to light by the survey, as well as studies that have been published since the literature search was conducted (Baird et al, 2021; Carter et al, 2021; McInnes et al, 2020; Pace et al, 2021). Central to this is organisational and structural support for continuity models. Where this is not optimal, or is

lacking; practice, learning and experiences will suffer as a result. The recommendations made in this chapter are therefore informed by a holistic perspective that aims to consider system impacts on CoC, as well as that not all students, or many women, experience practice within this model of care.

The original intent of this project was to inform curriculum development as part of the revalidation of the midwifery programme at ENU. However, the timeline of the study was impacted by the COVID-19 pandemic, which resulted in significant disruption to student placements. The researcher also required to prioritise home schooling and ensuring the wellbeing of three young children. This chapter therefore makes recommendations for education, research, and practice more generally than originally intended. It is envisaged that these recommendations will potentially therefore have more widespread impact and are broad in nature with the potential to select recommendations based on contextual requirements. Furthermore, the literature review component of this research (Moncrieff et al, 2019) has already had impact, through informing the development of several modules within the curriculum at ENU, as well as RCM CoC documents (RCM, 2020), and has been cited in recent related research (Baird et al, 2021; Carter et al, 2021; Newton et al, 2021).

The following recommendations are based on the findings of this research and are aimed at optimising learning from and working within continuity models of care:

- Flexible programme delivery, taking advantage of and advancing recent changes made through the COVID-19 pandemic. This will require engagement with recent graduates to determine the impact of these changes, and with current students to include their perspectives relating to any further changes. Strategies are required to guard against isolation, including the provision of maximum opportunities for online in-person engagement with lecturers (Geraghty et al, 2019), as well as opportunities for structured reflection within supportive communities of practice (Bass et al, 2017).
- Implementation of a continuity toolkit (McKellar et al, 2014), which would developed online and continuously updated by student midwives. This could include details relating to each placement area, evidence relating to continuity and how optimal models function, and podcasts that could include talks from midwives who work within well-functioning, sustainable teams.

- Strategies to establish appropriate professional boundaries and maintain a work-life balance within the curriculum, including sessions relating to sustainable working provided by caseload midwives (Carter et al, 2015).
- Strategies within the curriculum to counterbalance conflicting discourses in maternity, including space for students to specifically discuss these issues and the psychological complexities inherent in the midwifery role (Coldridge and Davis, 2017). This may include the use of critical theory within the curriculum (Hunter, 2006), to facilitate the deconstruction of dominant discourses and the space to envisage transformative change (Howell, 2013). The Bass model of reflection (Bass et al, 2017) may also be useful in this regard, through progressively developing the critical thinking and reflexive capacity required for these activities.
- Prioritisation of continuity of mentor (practice supervisor) within midwifery standards, education, and practice (Carter et al, 2015; Sidebotham and Fenwick, 2019).
- Formation of robust partnerships with placement areas, including implementation of a continuity coordinator (McKellar et al, 2014) and co-production of course content, placement plans, and documentation (Cummins et al, 2018; Sweet and Glover, 2013).
- Development of a strategy to identify the core tenets of woman centred care and implementation of this philosophy as central to and coherent throughout the curriculum and through to practice. Assessment of woman centred practice may be facilitated through the use of a recently developed tool that through reflection, measures aspects of practice considered as central to woman centred care (Davis et al, 2021).
- Any changes should be accompanied by effective dissemination strategies, such as a formal launch, and through posters and online platforms (Cummins et al, 2018).

The following recommendations are for research and based on the findings of this study:

- Research is needed to explore and determine the educational intent, learning outcomes, and optimal assessment strategies for continuity experiences, and this

should translate into clear guidance within midwifery standards for education and practice (Gamble et al, 2020; Tierney et al, 2017). More research from the UK in particular is required to inform the provision of midwifery education in this setting.

- This would be complemented by the development of an assessment tool that can specifically measure the achievement of learning outcomes associated with providing continuity of carer (Ebert et al, 2016).

- While the teaching and provision of evidence-based care is directed by midwifery policy and standards for practice (NMC, 2019b; Scottish Government, 2017), it is unclear how this should be effectively established within the curriculum. Research is required to understand how midwives can be facilitated to provide up to date evidence to women, in ways that meet their individual needs and preferences.

- Establish whether students placed within continuity models are better prepared and/or more likely to want to work in this model at the point of graduation. A recent study explored midwifery students perceived preparation, as well as their desire to work in continuity models (Carter et al, 2021), but did not compare students who had been placed within this model of care to those who were not.

- Research is also required to establish how students can be facilitated to acquire all the skills required for professional registration when placements are entirely within continuity models of care, particularly where these models are for low-risk women only (Carter et al, 2015; Gierke and Zupp, 2015).

- Previous research has established that although students feel educationally prepared to transition into continuity models, often students do not want to, or want a period of consolidation, through practicing in standard settings before doing so (Carter et al, 2015; Carter et al, 2021). There is a need to determine what further skills or attributes they therefore feel they require before moving into this model of care.

- Finally, there is a need to establish consensus around a core definition for woman centred care; to establish how the provision of such care can be optimised through theory and assessed; and to determine how the provision of this care can then be assessed in practice (Brady et al, 2019; Crepinsek et al, 2021; Davis et al, 2021).

Potential limitations to this research

There are some limitations to this study, including the time and resource restrictions of an MRes research project. The search strategy for the literature search could have been more comprehensive, and the inclusion/exclusion criteria more precise. Additional studies have since been identified that perhaps could have been included in the review, and it was only when the screening process began that it became evident that there was a lack of precise clarity with regard to the selection criteria. However, it is believed that the inclusion of these additional papers would not have changed the findings of the review; they confirm the findings of the literature review and this study. This has also been valuable learning as part of the Masters by Research.

For the midwives' survey, it became apparent after it went 'live', that the questions should have been tailored 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. However, again this forms useful learning for future research.

Another limitation is that a final set of consent questions was required at the end of the survey in order to attain ethics approval. A significant number of participants completed the survey but did not complete the final set of consent questions. These questions had already been asked at the start of the survey, and it is unclear why they were again required at the end of the survey, as this appears to have deterred a number of participants from completing the survey.

The original intention of this research was that it would inform curriculum development for the recent revalidation of the midwifery programme at ENU. However, the timing of this study was impacted by the COVID-19 pandemic. This caused significant disruption for student placements and for the researcher, who had to take time out to home school children. As a result, the entire research could not inform recent curriculum developments, but the literature review has informed the development of several modules within the curriculum at ENU, as well as RCM CoC documents (RCM, 2020), and has been cited in recent related research (Baird et al, 2021; Carter et al, 2021; Newton et al, 2021).

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 the development of woman centred philosophy and practice. However, strategies are needed to teach students how to establish appropriate professional and work-life boundaries.

Mentors can be transformational in the learning of student midwives and continuity of mentor is likely to be central to this, where continuity of optimal mentor facilitates the development of a trusting educational relationship where there is mutual awareness of expectations and requirements in relation to practice. Symbiotic relationships between education and practice may be required to facilitate the development of effective student-mentor relationships, and a continuity coordinator may optimise this approach. This will be complemented by the co-production of curricula, as well as placement plans and documentation, so that all stakeholders are aware of and invested in the professional development of student midwives.

Research is needed to establish the learning outcomes for CoC/CoCEs, and these should then be made explicit within guidance for midwifery education. However, CoCEs may not be ideal for the development of a woman centred philosophy, given their provision within fragmented models of care. 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 may facilitate engagement with and learning from the provision of CoC, but strategies need to be implemented to prevent students feeling isolated.

It is unclear whether placement within continuity models alone will provide the opportunities to build the whole repertoire of skills required for professional registration. However, placement within hospital settings may result in experiences that are counter to the development of woman centred philosophy and practice. 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.

Research is required to establish the intent and learning requirements for CoC within the curriculum and to develop educational strategies to optimise the development of woman centred philosophy and practice. There is a need to determine why some students do not feel they want to work within continuity models at the point of graduation and to provide educational strategies and practice experiences that promote optimal experiences and therefore facilitate the desire to work within this model. However, the precise requirements for the optimal provision of continuity models are not yet known. It is perhaps as a result of this that policy directives established without this knowledge, have resulted in models being set up in different ways, and less than optimal experiences for students and midwives. Although continuity models in Scotland have yet to be evaluated in terms of outcomes and experiences, this seems unlikely to optimise these for women and their families. With such uncertainty around the requirements for continuity models as well as the provision of these models in practice, an optimal approach may be to promote woman centred philosophy and practice, in order to counter institutional discourse and to facilitate the provision of this type of care, regardless of the model in which it is experienced.

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Appendix A Quality appraisal

Table 1. Quality appraisal of included studies.

Paper	Question number used by each tool to guide quality assessment							Include/exclude
	JBI Explanation of Text and Expert Opinion critical appraisal tool							
	1		2	3	4	5	6	
Ebert et al	Yes		Yes	Yes	Yes	Yes	Yes	Include
Gamble et a	Yes		Yes	Yes	Yes	Yes	Yes	Include
	MMAT Section 1: Qualitative studies							
	S1	S2	1.1	1.2	1.3	1.4	1.5	
Gray et al	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Include
McKellar et al	Yes	Yes	Can't tell	Yes	Yes	Yes	Yes	Include
Rawnson	Yes	Yes	Can't tell	Can't tell	Yes	Yes	Yes	Include
Sidebotham & Fenwick	Yes	Yes	Yes	Can't tell	Yes	Yes	Yes	Include
Sweet & Glover	Yes	Yes	Can't tell	Yes	Yes	Yes	Yes	Include

	MMAT Section 5: Mixed methods studies							
	S1	S2	5.1	5.2	5.3	5.4	5.5	
Carter et al	Yes	Yes	No	Yes	Yes	Yes	Yes	Include
Dawson et al	Yes	Yes	No	Yes	Yes	Yes	Yes	Include
Gray et al	Yes	Yes	No	Yes	Yes	Yes	Yes	Include
McLachlan et al	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Include
Tickle et al	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Include

Key to abbreviations: JBI – Joanna Briggs Institute, MMAT – Mixed Methods Appraisal Tool.

Appendix B: summary of included studies

Table 2. Summary of included studies.

Paper and location	Aim/objective	Design	Key elements from findings
Carter et al, 2015 Australia	To explore student midwives' experiences of an innovative continuity model of care placement	Mixed methods, descriptive cohort. Online student survey (n=16). Descriptive statistics and content analysis. Caseload model	Placement within a caseload model was thought to be beneficial to learning and the development of relationships and confidence. The importance of a supportive mentor-student relationship to learning was highlighted. Some students however had experienced stress due to course requirements, including hours required to provide continuity and clinical skills acquisition
Dawson et al, 2015 Australia	To evaluate student midwives' experiences of undertaking COCEs as well as their employment intentions following graduation	Mixed methods. Survey of midwifery students (n=129). Descriptive statistics and content analysis. Continuity experiences	Students were positive about the continuity and the importance of relationships. However, some students worried about on call and impact on work-life balance as well as family responsibilities. While many reported wanting to work in a caseload model, they wanted to do so after consolidation of skills and having gained experience elsewhere
Ebert et al, 2015 Australia	To explore issues around the numbers and hours requirements in midwifery education, including those of continuity experiences	Review/discussion. Continuity experiences	No single or clear approach to continuity experiences. The focus on numbers devalues the importance of and ability to provide women-centred care. Continuity experiences can be seen as another tick-box exercise rather than a primary way of learning midwifery skills

Gamble et al, 2020 Australia	To identify the underlying educational intent of continuity experiences	Discussion/review. Continuity experiences	Continuity experiences foster confidence and resilience, and influence career goals. However, concerns are raised around the lack of guidance as to the intent, expected learning outcomes, and assessment of continuity experiences. The authors also emphasise that programs should be designed with continuity at their core and guiding delivery
Gray et al, 2012 Australia	To gain insights into student midwives' experiences of continuity experiences as well as the value and learning gained from these	Mixed methods. Online survey of midwifery students (n=101). Descriptive statistics and thematic analysis. Continuity experiences	The value of continuity experiences and being able to form relationships was recognised by student midwives. Many felt however that too many were required to enable them to do them properly, and they were often seen as an additional part of the course rather than an integral part of the curriculum. In addition, there was confusion around expected documentation.
Gray et al, 2013, Australia	To understand the impact and learning associated with the follow-through experience for third year midwifery student	Qualitative descriptive. Telephone interviews with former and current students (n=28). Data analysed by thematic analysis Continuity experiences	Students identified the importance of relationships which facilitated trust, as well as the motivation to learn and do right for women in their care - relationships were seen as key to learning. However, as a result of the numbers requirement, students felt were often just going through the motions. This is recognised as contrary to the underlying philosophy of this model and the need to focus on the quality and underlying intent is highlighted

McKellar et al, 2014 Australia	To identify the challenges and potential supportive strategies for student midwives undertaking continuity experiences	Mixed methods. Focus groups with education providers and students and a survey with students (n=69). Thematic analysis. Continuity experiences	Need to identify the underlying intent of continuity experiences and to link theory and practice. Explicit guidance around expectations and establishing boundaries are lacking and are required. The importance of a supportive mentor and confidence are highlighted. Supportive strategies identified include a continuity toolkit
McLachlan et al, 2013 Australia	To explore experiences of the follow-through experience, from the point of view of student midwives and academics	Mixed methods. Cross-sectional online survey involving students (n=401) and academics (n=35). Descriptive statistics and content analysis. Continuity experiences	Follow-through experience recognised as a valuable and essential learning opportunity for students. Major concerns raised around the requirement for numbers which it was felt impacted on coursework as well as personal commitments. The authors warn against prescriptive requirements for these experiences. Also highlight the need for systems that support, facilitate and monitor the experiences and ensure clear boundaries are established
Rawnson, 2011 England	To gain insight into student midwives' experiences and learning from caseloading	Qualitative. In-depth semi-structured face-to-face interviews (n=8) and thematic analysis of data. Continuity experiences	Caseloading found to be highly beneficial in promoting student's confidence and self-belief. The mentor's attitude was pivotal in determining learning to be gained. While some enjoyed the flexible way of working, others found it stressful and difficult to juggle with other commitments. Suggest the inclusion of boundary setting in the curriculum

Sidebotham & Fenwick, 2019 Australia	To explore third-year midwifery students' experiences of undertaking placement within a caseload model of care	Qualitative descriptive. Semi-structured telephone interviews (n=12) and thematic analysis. Caseload model of care.	Placement provided in-depth understanding of how caseloading worked as well as the importance of time and relationships. The midwife-student-woman relationship was key in facilitating learning and the development of professional identity – the close student-mentor relationship was particularly important. Recommend flexible programme delivery.
Sweet and Glover, 2013 Australia	To identify strengths, weaknesses and ways to improve the student continuity of care experience.	Discussion paper based on previous qualitative study. Focus groups and thematic analysis. Continuity experiences.	Continuity experiences provide the opportunity for midwifery students to experience and reflect upon and compare care provided within different models and by different care providers. This affords the opportunity for professional development. However, often students feel unwelcome within the clinical environment and the development of stronger relationships between universities and placement areas is recommended to ensure students are integrated as part of the team.
Tickle et al, 2016 Australia	To explore women's experiences of having continuity of care provided by a midwifery student.	Mixed methods. Paper-based survey of women (n=237) cared for by a midwifery student. Continuity experiences.	Women valued continuity provided by student midwives and satisfaction increased with number of visits attended. The mean number of antenatal visits attended was 6.59 and for postnatal visits was 5.11. The authors stipulate that the curriculum has a strong commitment to continuity, and that its delivery is flexible to facilitate attendance at appointments and the development of relationships.

Appendix C: Surveys

Questions for student midwives

Demographics

1. Year of study
    - 1st year
    - 2nd year
    - 3rd year
2. Age range
    - 18-25
    - 26-40
    - >40
3. Midwifery programme
    - Bachelor of Midwifery
    - Master of Midwifery

Survey questions

4. How satisfied are you with your placement within the continuity model of care
    - Very satisfied
    - Satisfied
    - Neutral
    - Dissatisfied

    Any other comments

5. Do you feel that the programme content sufficiently prepares you for placement within continuity models of care
    - Yes
    - No

6. Does the programme content sufficiently prepare you to interact with women
    - Yes
    - No
7. Does the programme content sufficiently prepare you to interact with the interdisciplinary team
    - Yes
    - No
8. Do you feel the content of the midwifery programme has enhanced your time management skills
    - Yes
    - No
9. Would increased flexibility of programme delivery be useful (i.e. more lectures and tutorials available on Moodle)
    - Yes
    - No
10. Do you feel reflection would be more effective if held
    - Within the placement site and including members of the continuity team
    - In University with the rest of your cohort
    - A combination of both
11. Would it be more beneficial if reflection was held
    - Ever fortnight
    - Monthly
    - Once every term
12. Do you have sufficient opportunity to practice core clinical skills (e.g. taking blood pressure and routine bloods) within the continuity placement
    - Yes
    - No

13. Do you feel it would be beneficial to spend a core year in the hospital

    - Yes
    - No

Would this core year be more beneficial in first or second year

14. Would a continuity toolkit be useful for preparing to work in continuity models (i.e. resources, guidelines and evidence for scenarios)

    - Yes
    - No

15. Would a dedicated continuity coordinator would be beneficial (i.e. a link person who works across education and practice to support students)

    - Yes
    - No

16. How do you feel about going on call for births as part of continuity placements

    - Going on call for births should be compulsory
    - Going on call for births should be optional
    - Students should not go on call for births

17. Would you choose to be on-call for women in your caseload

    - Yes
    - No

Free text

18. What aspects of the curriculum do consider to be important in preparing you for placement within Best Start models

19. Are there any aspects of the curriculum that would be more effective if taught before placement in Best Start models

20. Which aspects of the curriculum do you feel would be more effective if taught

    - on-line
    - face-to-face

21. What challenges (if any) did you experience with integrating into the continuity model of care.

What might have helped you practised more effectively during your placement

Additional feedback

22. We welcome your feedback and would appreciate any additional comments you may wish to give

Midwives survey

Demographics

1. Age range

- 20-35
- 36-50
- >50

2. Length of midwifery experience

- 0-5 years
- 6-15 years
- >15 years

3. Do you currently, or have you worked previously in higher education

- Currently
- Previously

4. Please state the country in which you currently or have previously practised in a continuity model of care

Survey Questions

5. Do you feel that the curriculum sufficiently prepares student midwives for placement within continuity models of care

- Yes
- No

6. Should there be a specific emphasis on building professional relationships within the curriculum to prepare students for continuity models of care

- Yes
- No

7. Does the curriculum sufficiently prepare students sufficiently to interact with women and the interdisciplinary team

- Yes
- No

8. Do you feel the curriculum prepares students adequately with the following skills and attributes

Please mark any boxes that apply

- Time-management skills
- Professional boundary setting
- Resilience
- Decision-making
- Leadership skills

9. Would it be beneficial to increase programme flexibility when considering placement within continuity models of care (i.e. more lectures and tutorials online)

- Yes
- No

10. Do you feel that reflection for students would be more beneficial if held

- Within the placement site and including members of the continuity team
- In university with the rest of their cohort
- A combination of both

11. Would it be more beneficial if reflection was held

- Every fortnight
- Monthly
- Once every term

12. Do you feel it would be beneficial for students to spend a core year in the hospital

- Yes
- No

Would this core year be more beneficial in first or second year

13. Would a continuity toolkit would be useful in preparing students for placement within continuity models (i.e. resources, guidelines and evidence for scenarios)

- Yes
- No

14. Would a dedicated continuity coordinator be useful to support students (i.e. a link person who works across education and practice to support students)

- Yes
- No

15. How do you feel about student midwives going on call for births as part of their continuity placement

- Going on call for births should be compulsory
- Going on call for births should be optional
- Students should not go on call for births

Free text

16. Is there anything you consider to be an essential component within midwifery education that could enhance learning gained from placement within these models of care

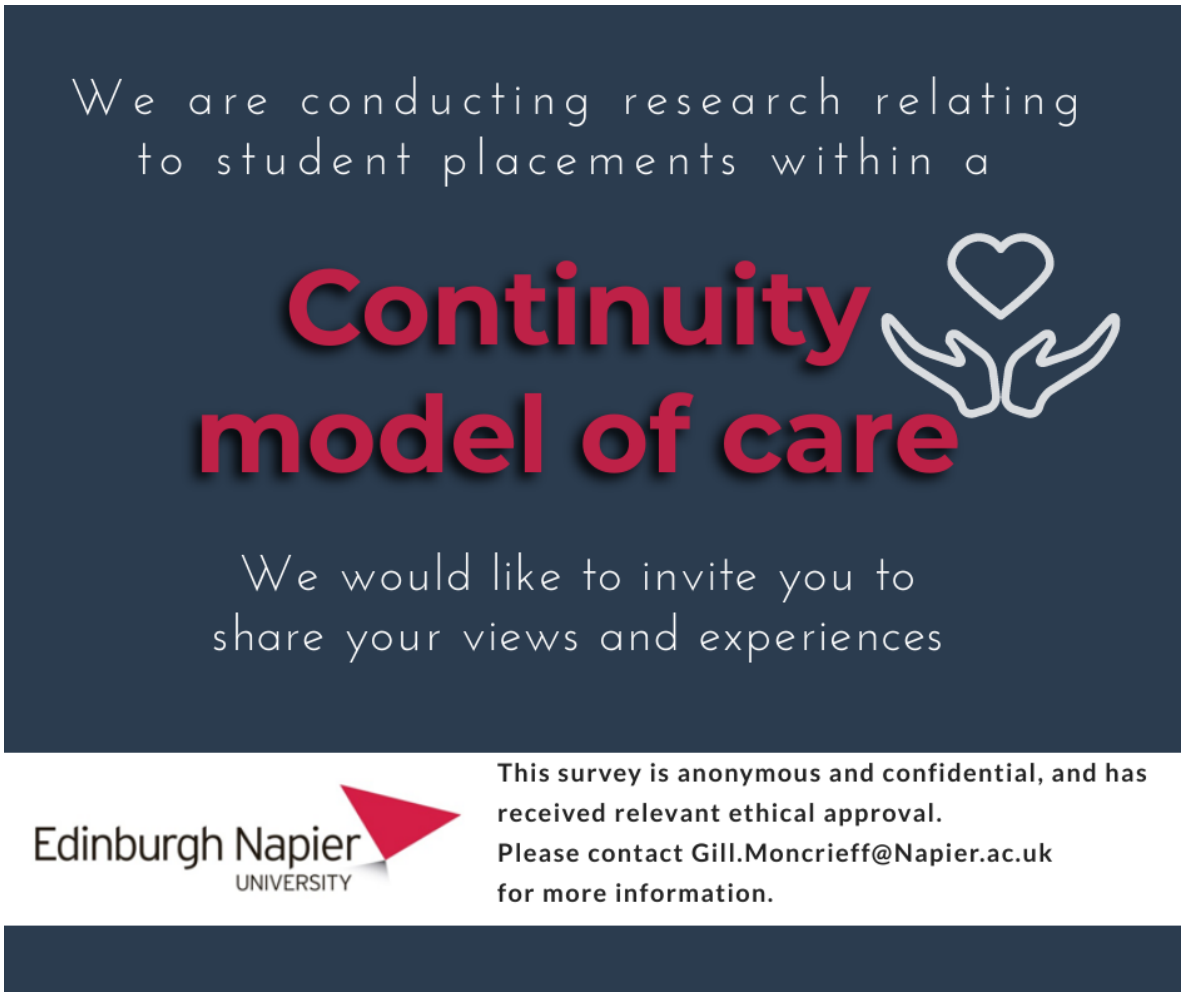
17. Are there any challenges associated with integrating students into continuity models of care

- Is there anything you can suggest within the midwifery curriculum that might help overcome these challenges

Additional Feedback

18. We welcome your input and would appreciate any additional comments you may wish to give

Appendix D poster invite for surveys



Edinburgh Napier UNIVERSITY

Appendix E Participant information and consent

A Survey *Exploring curriculum facilitators and barriers to student midwife placements within continuity models of care'***.**

Dear Participant, You have been invited to participate in a research project '*Exploring curriculum facilitators and barriers to student midwife placements within continuity models of care'* by Gill Moncrieff a research student at Edinburgh Napier University.

What is the purpose of the study?

The study aims:

1) Identify student midwives' experiences of educational methods that facilitate or inhibit their effectiveness to work within the continuity model of midwifery care.

Why have I been asked to participate?

You are invited to participate as you are a current student midwife with experience of continuity models of care.

Do I have to participate?

No. It is your decision as to whether you participate or decline this invitation. Your decision to decline will not affect your education nor bear any negative consequences. However, if you do decide to participate, please keep this copy of the participant information sheet and informed consent document. You will be asked to complete the consent form electronically. If you decide to participate, you are free to withdraw prior to submission of the survey. However, after submission as the data will be anonymised would not be possible for your data to be removed as it would be untraceable at this point.

What are the participant requirements?

Firstly, if you decide to participate, you would be directed to Moodle by your programme leader which will contain a link to a short online survey that would take 15 minutes to complete. The online survey consists of an electronic consent document and x questions in

which you would be asked about your educational preparation for working in a continuity model of care.

What are the possible benefits of participating?

If you participate, you will have the opportunity to provide insight into your perspectives and experiences of educational preparation for working in a continuity model of care.

What are the possible risks of participating?

If you decide to participate, there may be a slight risk of experiencing distress upon completion of the online survey. However, support would be provided in the form of service signposting to Edinburgh Napier University's Counselling and Mental Well-Being Service if required.

Will my participation within the study remain confidential?

All personal information collected during the study will remain confidential. Data gathered will be anonymous and there are strict laws that safeguard your privacy at every stage. As such, any potentially identifiable information will be removed from the data to ensure your anonymity. Finally, strict measures would be taken to ensure that any data are non-identifiable if used in the presentation of these findings. To further ensure your anonymity, identifiable and non-identifiable data will be stored separately. Finally, to further ensure confidentiality due to the small number of midwifery students the findings will reported collectively as a cohort.

Please read the privacy notice for further details on how your data will be processed.

What happens when the study is finished?

The data will be stored on a secure Edinburgh Napier University database. The resultant non-identifiable data may be made available to other researchers for further analysis once the results of the research have been published. However, this would only occur following an official request, consideration of suitability for sharing and subject to a data sharing agreement between Edinburgh Napier University and the requesting researcher.

What will happen to the results of the study?

The results of this study will be used as part fulfilment of the requirements of the MRes *Exploring curriculum facilitators and barriers to student midwife placements within continuity models of care'* as outlined by Edinburgh Napier University. The study will be written up as a report and the findings may be published in healthcare journals and / or disseminated at conferences. You could also request the results of this study by contacting the researcher directly at Gill.Moncrieff@napier.ac.uk upon the conclusion of the study.

Who is organising the research and why?

The principal investigator organising the study is Gill Moncrieff, a student at Edinburgh Napier University.

Privacy Statement:

Please see Appendix 1: Privacy Notice, which details what information we are collecting and why. For more information, please view the privacy policy at: https://www.napier.ac.uk/privacy-policy.

Who has reviewed the study?

The study has been reviewed by the School of Health and Social Care Ethics Committee at Edinburgh Napier University.

If you have further questions about the study, please contact:

Researcher: Gill Moncrieff

Supervisor: Sonya MacVicar

If you would like to discuss this study with an independent advisor, please contact:

Independent Advisor: Elaine Carnegie

Please take some time to carefully read through the following information on the **next page.** If at any point you have any questions, please do not hesitate to ask the researcher, Gill Moncrieff at the email address Gill.Moncrieff@napier.ac.uk.

Informed Consent survey

1. I confirm that I have read and understood the information sheet for the above project. ☐
2. I understand I am under no obligation to take part in this study ☐
3. I understand that my taking part is voluntary and that I am free to withdraw at any time, without having to give a reason. However, after the survey has been submitted and anonymised it will not be possible for my data to be removed as it would be untraceable at this point. ☐
4. I understand that my data will be stored anonymously and in accordance with the Data Protection Act 2018 and Edinburgh Napier University Code of Research Practice (2018). ☐
5. I have been given the opportunity to ask any questions regarding the study and my questions have been answered to my satisfaction. ☐
6. I understand that personal data is being processed for this study as per the privacy notice (version/date) ☐
7. I agree to take part in this survey. ☐

Repeat at end of survey

I understand that once the survey has been submitted and anonymised it will not be possible for my data to be removed as it would be untraceable at this point. ☐

I consent to the survey being submitted ☐

Participant name Date

Participant's Signature Date

Researcher's Signature Date

Researcher Contact Details:

Name: Gill Moncrieff **Email:** Gill.Moncrieff@napier.ac.uk

Address: School of Health and Social Care, Edinburgh Napier University, Sighthill Campus, Edinburgh, EH11 4BN, Scotland.

Date: xxxx