



Impact of working in continuity of care models on Australian midwives: A scoping review

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ABSTRACT

Problem: Global and national strategy directives identify continuity of midwifery carer (CoMC) models as important priorities for workforce development. There are concerns about the impacts of working in CoMC on the midwifery workforce in Australia.

Background: CoMC models enable care across the childbearing continuum from a single midwife or small group of midwives known to the pregnant woman, improving perinatal outcomes. Potential impacts on midwives working in these models include work-life balance, retention, professional progression, professional satisfaction, burnout and attrition.

Aim: To review and synthesise research reporting the impact of working in CoMC models on midwives in Australia, and identify knowledge gaps to guide future research.

Methods: This review adopted the Joanna Briggs Institute methodology for scoping reviews and the PRISMA-ScR check list. A search strategy was developed using keywords relating to the midwifery profession, location (Australia) and CoMC models. Four databases were searched, relevant papers were identified, data extracted and synthesised.

Findings: Thirty-two papers met the inclusion criteria for this review. Impacts were identified under the following themes: positive partnerships with women, improved professional satisfaction, work-life balance, impact on professional relationships and positive psychological health and wellbeing.

Discussion: These impacts are mostly positive, with evidence of lower levels of intention to leave the workforce and reduced levels of burnout, compared to those working in shift-based models.

Conclusion: The effect of variations in on-call arrangements were identified as an aspect of work-life balance for future research. Findings are relevant for health service design reform and strategic national workforce planning.

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Statement of Significance**Problem or Issue**

Barriers remain to the widespread implementation of continuity of midwifery care (CoMC) with limited evidence about the impact of this model on midwives.

What is Already Known

The benefits to women of CoMC are well established. Managers, policy makers and midwives seek confirmation of the impact of CoMC models on midwifery workforce.

What this Paper Adds

This review provides a structured synthesis of evidence regarding the impacts of working in CoMC for Australian midwives, demonstrating that most impacts are positive and supporting the continuation of key features of CoMC models in Australia. Findings are relevant for strategic national workforce planning and clinical leadership at service provider level.

1. Introduction

Continuity of midwifery carer (CoMC) models enable care across the childbearing continuum from a single midwife or small group of midwives known to the pregnant woman [1]. The national Australian maternity strategy profiles the importance of women's choice and access to CoMC as an established means to improve maternal and perinatal outcomes, and women's experiences of maternity care [2].

A recent scoping review explored what women in Australia want from their maternity care; it confirmed women's strong desire for continuity of care from a known midwife [3]. Much of the evidence regarding CoMC models has focused on the impacts on women and their families including: reduced rates of intervention [4–7]; culturally safe and respectful care [8,9]; effective and tailored support and care for women facing social risk factors such as homelessness, domestic violence or mental illness [10]; the provision of emotional support [11]; moderation of the effects of antenatal stress [12]; and empowering women to gain increased awareness and confidence in themselves during pregnancy, enabling them to recognise signs of their baby's health during and after birth [13]. Women consistently report high levels of satisfaction with care [14]; and value the individualised approach that respects their autonomy and self-determination [15–17]. CoMC models are associated with improvements in perinatal outcomes [18] and cost-effectiveness compared to fragmented models of care [19,20].

Previous research found that CoMC is associated with higher levels of satisfaction for midwives and lower levels of workforce burnout [21,22]. A recent report on Australia's midwifery workforce revealed high levels of interest from midwives in participating in CoMC models, with midwives currently working in these models less likely to be considering leaving the profession [23]. In a survey of 303 midwifery students, 80% aspired to work in CoMC models following graduation [23,24]. This demonstrates a strong desire from both the current and future midwifery workforce to embrace the flexible and autonomous ways of working that CoMC models provide.

At a national level, recent policy directives support the redesign of maternity care to profile and prioritise CoMC [2, 25, 26]. Despite the strong demand from women, interest among midwives, and policies to support the strengthening of CoMC, barriers remain to implementation of CoMC as the default model of care. There are concerns from managers, policy makers and midwives on the impact of CoMC models on midwives themselves [21,27]. This review addresses the question: What is the impact of working in CoMC models on midwives in Australia? The paper aims to review and synthesise the available research reporting the impact of working in CoMC models on midwives in Australia. It aims to

consolidate evidence on midwives' experiences and workforce issues within CoMC models. Based on the findings of the initial screening of potential papers for review and from recent national midwifery workforce research reported in the inaugural review of midwifery workforce in Australia [23], this paper focused on critical aspects such as work-life balance, retention, career progression, job satisfaction, burnout, and attrition.

2. Methods

We adopted the Joanna Briggs Institute (JBI) Scoping Review Methodology [28,29] using the Preferred Reporting Items for Systematic Reviews and Meta-Analysis extension for Scoping Reviews [PRISMA-ScR [30,31]]. An a priori protocol was developed addressing the overarching review question, objectives, population, concept, context, inclusion/exclusion criteria and search strategy. The protocol obtained consensus from the authorship team prior to commencement of searching.

2.1. Eligibility criteria**2.1.1. Population**

The review included papers reporting on the experiences of midwives working in Australia (Table 1). Papers including midwifery students and professions other than midwifery, such as nurses and obstetricians, were excluded unless the paper also included midwives and stratified the results by profession.

2.1.2. Concept

Papers describing the impacts of working in CoMC models on midwives (including midwifery managers) in Australia were included. Peer-reviewed empirical research was included, while grey literature, commentaries, editorials, and conference proceedings without full-text were excluded. While the JBI ScR framework acknowledges the potential for grey literature inclusion, it is not an explicit requirement of this methodological approach [30] and was not adopted in this case because of the potential overlap with published literature.

2.1.3. Context

The review exclusively considered research focused on midwives working in Australia. The Australian Midwifery Action Program (AMAP) report comprehensively reviewed issues for the workforce up to 2003 [32]. This marked a significant turning point for the development of the profession. For this reason, a start date of 2004 was chosen for the review. Publications from 1 January 2004–11 July 2024 were included in the initial search. As the review focused on midwives working in Australia, only English language articles were included.

Table 1

Inclusion and exclusion criteria for papers for screening.

Inclusion criteria	Exclusion criteria
<ul style="list-style-type: none"> Peer-reviewed Empirical research Published 2004 to current English language Participants are midwives including clinical midwifery managers and/or non-practising midwives and new graduates Focuses on the working experience and/or workforce issues facing Australian midwives 	<ul style="list-style-type: none"> Grey literature, commentaries, editorials, conference posters and conference presentation abstracts without full-text Participants include midwifery students and does not stratify results Participants include professions other than midwives and/or maternity midwifery unit / clinical midwifery manager (such as nurses) and does not stratify results Research that includes midwives based outside of Australia and does not stratify results

Table 2
Search strategy for papers for screening Ovid databases (MEDLINE, Embase and Emcare).

1. Midwifery/ OR Midwifery service*/ OR midwi* .mp
2. Australia/ OR (australia* OR canberra OR new south wales OR sydney OR victoria OR melbourne OR queensland OR brisbane OR adelaide OR tasman* OR hobart OR perth OR darwin OR aborigin* OR torres strait* OR northern territory).mp
3. continuity of patient care/ OR continuity of patient care OR continuity model* or Continuity or Continuity of care* OR Caseload* OR case load* OR Model* of maternity care OR Model* of care OR group practi* or private practi* or relation* or partner* OR "maternity antenatal and postnatal service".mp
4. Continuity of midwifery care OR known midwi* OR primary midwi* OR team midwi* care.mp
5. (1 AND 2 AND 3) OR
6. (2 AND 4)
7. (5 OR 6)
8. limit 7 to (english language and yr="2004 -Current")

CINAHL

1. (MH (Midwifery+ OR Midwifery service+)) OR midwi*
2. (MH Australia+)
OR (australia* OR canberra OR new south wales OR sydney OR victoria OR melbourne OR queensland OR brisbane OR adelaide OR tasman* OR hobart OR perth OR Darwin OR aborigin* OR torres strait* OR northern territory)
3. (MH continuity of patient care) OR (continuity of patient care OR continuity model* or Continuity or Continuity of care* OR Caseload* OR case load* OR Model* of maternity care OR Model* of care OR group practi* or private practi* or relation* or partner* OR "maternity antenatal and postnatal service")
4. Continuity of midwifery care OR known midwi* OR primary midwi* OR team midwi* care
5. (1 AND 2 AND 3) OR
6. (2 AND 4)
7. (5 OR 6) (limiters – Publication Date 20040101; English Language)
8. limit 7 to (english language and yr="2004 -Current")

2.2. Search strategy

The search strategy was developed in several stages. Firstly, a concept grid consisting of three 'concepts' (midwifery, continuity of care and location) was created in collaboration with a faculty librarian. An initial search was conducted in MEDLINE and CINAHL based on the initial concept grid and research question. Based on these search results, a comprehensive grid of key words and subject headings was formulated and tested in MEDLINE and CINAHL. These search terms were then circulated to the review team for comments, and adjustments were made. The review team consisted of researchers from a variety of backgrounds such as midwifery, obstetrics, epidemiology, nursing, and health ethics. A final search strategy was then approved by the team (Table 2) and the search was run on 11 July 2024 in the following databases: MEDLINE, Embase, Emcare, and CINAHL Ultimate. These databases were chosen as they index a large proportion of relevant peer-reviewed biomedical literature.

All articles retrieved from the searches were imported into Covidence, a web-based tool for screening, reviewing, data extraction and reporting of systematic and scoping reviews [33]. Duplicates were initially removed automatically by Covidence, with additional duplicates manually identified and removed prior to the screening process (Fig. 2).

2.3. Study selection

All records were screened in Covidence [33]. Three of the authors screened titles and abstracts, with each being reviewed by at least two authors. Conflicts were resolved by a fourth author. Of the 2424 records undergoing title and abstract screening, 54 articles progressed to full-text review. Each reviewer was provided with a document listing the research question and table of inclusion and exclusion criteria (Table 1), with the records screened against these criteria. Results from the search, title and abstract screening, and full-text review processes are presented in Fig. 1 in a PRISMA flow diagram. A total of 32 records were included and progressed to data extraction.

2.4. Data extraction

Extraction was conducted using an adapted Covidence template. The extraction tool included the following fields: general information (title, lead author contact details, notes); aim of the study; methods (study type, data collection methods, study design, country of study, state of territory of the study, focus on a specific group); inclusion and exclusion criteria; participants (method of recruitment, participant type, were there any other participants included in the study, actual and potential midwives participating, baseline population characteristics); details of model of care (continuity model of care type and further details, comparison group); and impacts (further details below) (Supplementary Figure 1).

The list of potential impacts on midwives included in the extraction tool was created from the articles screened, and the professional and clinical experiences of the authors, most of whom have significant experience working in CoMC. Data on the following impacts were extracted: work-life balance; working hours; support; job satisfaction including measurement using standardised tools, psychological and emotional health including standardised tools; and physical health issues.

Data extraction was conducted in Covidence by one author and checked by a second author. Data from the extraction tool were then transferred to an Excel spreadsheet for analysis.

2.5. Data analysis

Data were analysed using inductive content analysis that adopts a descriptive approach to analysis as is appropriate for scoping reviews [34,35]. The three-phased approach commonly used in scoping review analysis consisted of i) preparation of the framework undertaken by the team; ii) organising, which involved familiarisation with the data, reading and re-reading to understand how each included paper was relevant to the overarching aim and review questions; and iii) reporting using a structured approach of data synthesis and display [35].

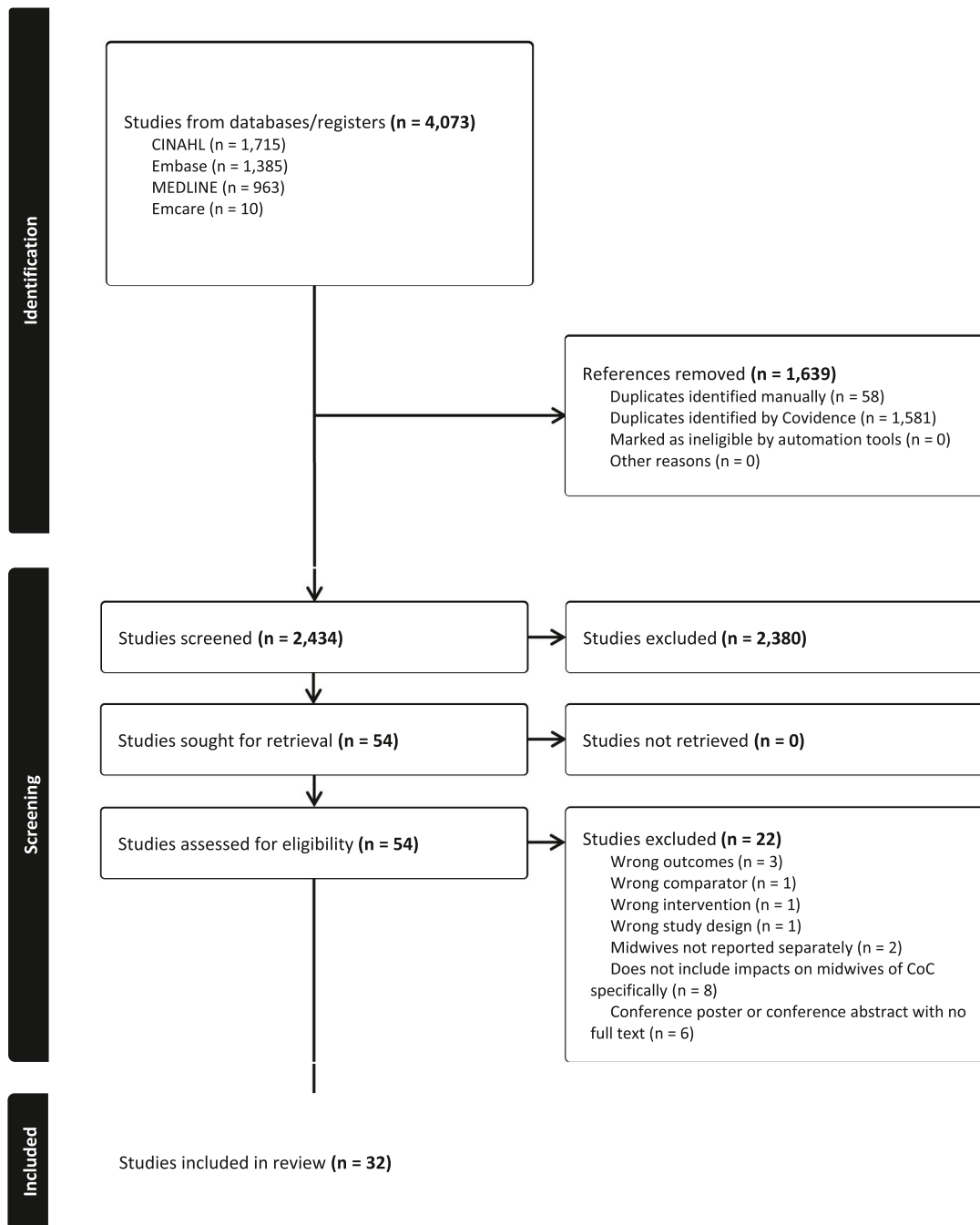


Fig. 1. PRISMA diagram for CoMC scoping review.

3. Results

3.1. Study inclusion

The 32 included records were published between 2004 and 2024 (Table 3). Only one paper was published before 2010, 18 (56 %) between 2010 and 2019, and 13 (41 %) between 2020 and 2024.

Four studies contributed two papers each [21, 36–42], and one study contributed four papers [27, 43–45]. Each paper was treated separately as it reported either a different phase, a distinct group of participants, or an alternate data collection method for the relevant research project.

Of the included papers, the majority (18, 56 %) used a qualitative approach, five (16 %) were quantitative, and the remaining nine (28 %) used both quantitative and qualitative approaches. Data were collected

using three methods: surveys (14, 44 %), interviews (17, 53 %), and focus groups (5, 16 %). Of these, three papers collected data using both interviews and focus groups, and one used both a survey and an interview.

Several studies included or focused on new graduate midwives within two years of graduation [46–50] while others either included or specifically targeted midwifery managers [36, 43–46, 50, 51].

A quarter of studies were national, with six (19 %) being based in New South Wales, four (13 %) each in Queensland and Victoria, and three (9 %) each in Western Australia and South Australia. A further four (13 %) were based across several, but not all, states and territories of Australia.

Four papers (13 %) did not focus primarily on CoMC models but included impacts associated with this working in this model [41, 42, 52,

Table 3
Characteristics of the included studies.

Author (year)	Aim	Study type	Study location	Population	Comparison group	Model of care
Barker et al. (2019)[59]	To investigate the experiences of midwives transitioning to private practice with visiting access to a public hospital.	Qualitative (interviews)	QLD	Midwives working in a CoMC model	None	Private midwifery care
Barnett et al. (2016)[63]	To explore the experiences of midwives involved in establishing the first MGP situated at a WA tertiary maternity hospital.	Qualitative (interviews: 2 time points)	WA	Midwives in the first year working in a new CoMC model	None	Hospital-based Midwifery Group Practice (MGP)
Bradfield et al. (2019)[60]	To explore midwives' experiences of being 'with woman' during labour and birth in the context of a model that facilitates care by a known midwife.	Qualitative (interviews)	WA	Midwives	None	MGP, private midwifery practice, Community Midwifery Program
Catling et al. (2017)[46]	To explore the midwifery workplace culture from the midwives' perspective.	Qualitative (interviews)	Not specified.	Midwives including new graduates and managers	Included midwives working in other models of care.	MGP, private midwifery care
Collins et al. (2010)[64]	To examine changes in midwives' attitudes following the introduction of midwifery group practice and explore aspects of the model that were working well and those that were not working well.	Quantitative and qualitative (survey: 5 time points)	SA	Midwives	None	MGP
Cummins et al. (2015)[47]	To explore the experiences of the new graduate midwives who have worked in midwifery continuity of care, in particular, the support they received; and to establish the facilitators and barriers to the expansion of new graduate positions in midwifery continuity of care models.	Qualitative (interviews)	NSW, SA	Newly graduated midwives	None	CoMC (no further detail given)
Cummins et al. (2022)[55]	To explore the value and acceptability of an antenatal and postnatal midwifery program to women, midwives and obstetricians prior to implementation of the model at one hospital in Metropolitan Sydney, Australia.	Qualitative (interviews and focus groups)	NSW	Midwives	None. Study also included women and obstetrician	MAPS (CoMC for ante- and postnatal care only)
Cummins et al. (2024)[56]	To evaluate MAPS (midwifery antenatal and postnatal service) services in six sites across one state in Australia.	Qualitative (interviews)	NSW	Midwives	None. Study also included women	Modified version of MGP: CoMC with antenatal and postnatal care only
Dawson et al. (2016)[36]	To describe the prevalence and factors associated with the implementation and sustainability of caseload midwifery.	Quantitative and qualitative (survey)	National	Midwifery managers	Included hospital with and without CoMC	Caseload midwifery
Dawson et al. (2018)[37]	To compare the experiences of caseload and non-caseload midwives across Australia in relationship to burnout and attitudes to their professional role.	Quantitative (survey)	National	Midwives	Core midwives working in hospitals with or without CoMC as an option	Caseload midwifery/ MGP
Edmondson et al. (2014)[61]	To explore how birth centre midwives working within a caseload model care constructed their midwifery role in order to maintain a positive work-life balance.	Qualitative (interviews)	QLD	Midwives	None	Birth centre caseload model of care
Fenwick et al. (2012)[48]	To explore the newly qualified midwives' experiences of their transition period (first 12 months of practice).	Qualitative (interviews)	NSW	Newly graduated midwives	Standard hospital midwives and community-based care	Standard hospital maternity care, community-based care and CoMC
Fenwick et al. (2018)[38]	To identify personal, professional and workplace factors that contribute to burnout in midwives.	Quantitative (survey)	All	Midwives	Midwives working in other models of care	Caseload midwives
Fenwick et al. (2018) [21]	To compare the emotional and professional wellbeing as well as satisfaction with time off and work-life balance of midwives providing continuity of care with midwives not providing continuity	Quantitative (survey)	All	Midwives	Midwives not working in CoMC	Midwifery caseload: defined as care provided by one or two, no more than three, midwives to a defined number of women across antenatal, intrapartum and postnatal period.
Fereday et al. (2010)[51]	To explore how a group of midwives achieved a work-life balance working within a caseload model of care with flexible work hours and on-call work	Qualitative (interviews)	SA	Midwives, midwifery managers	None	MGP and private midwifery care
Hewitt et al. (2022) [43]	To clarify what constitutes optimal management to ultimately sustain MGP in Australia.	Qualitative (interviews and focus groups)	NSW, VIC, TAS, NT	MGP managers, clinical midwife consultants, operational and strategy managers	None	MGP

(continued on next page)

Table 3 (continued)

Author (year)	Aim	Study type	Study location	Population	Comparison group	Model of care
Hewitt et al. (2022) [27]	To explore what determines optimal management of MGP in Australia, and the influence it has on sustainability of MGP	Qualitative (interviews)	NSW, QLD, WA, NT	Midwives	None	MGP
Hewitt et al. (2024) [45]	To investigate midwives' and managers' opinions on the management, culture, and sustainability of MGP	Quantitative and qualitative (survey)	All	Midwives, MGP managers and executive managers of the MGP service	None	MGP
Hewitt et al. (2024)[44]	To describe the characteristics of Australian MGPs and the factors that help or hinder sustainability.	Quantitative and qualitative (survey)	All	Midwives and midwifery managers	None	MGP
Kashani et al. (2021)[57]	To describe midwives' experiences and views of working in a caseload model in a rural region of Australia.	Qualitative (interviews)	VIC	Midwives	None	Modified caseload. Work in partnership with another midwife. On-call hours reduced to 12 continuous hrs.
Martin et al. (2015)[58]	To describe the midwives' experiences of work in the next birth after caesarean (NBAC) service	Qualitative (interviews)	WA	Midwives	None	Midwife-led service for women who have had a previous caesarean section. Antenatal service integrates continuity of midwifery care. (NBAC service). Known midwife
McKellar et al. (2024)[49]	To evaluate the effectiveness, acceptability, and sustainability of the new midwifery model of care in a regional area from the perspective of health care providers.	Qualitative (focus groups: 2 rounds)	SA	Midwives including new graduates	None	
McLardie-Hore et al. (2023) [54]	Explore the views, experiences and wellbeing of midwives working in an all-risk culturally responsive model for First Nations families compared to midwives in standard caseload models at the same sites.	Quantitative (survey: 2 rounds)	VIC	Midwives	Culturally responsive vs standard CoMC model	Culturally sensitive (CR) caseload - staff underwent training on cultural sensitivity and safety when working with Aboriginal and Torres Strait Islander women.
Newton et al. (2014)[40]	Explored midwives' attitudes to their professional role, and also measured burnout in caseload midwives compared to standard care midwives.	Quantitative and qualitative (survey)	VIC	Midwives	Core (standard) midwives	Caseload in public hospital
Newton et al. (2016)[39]	To explore caseload and standard care midwives' views and experiences of midwifery work in two new caseload sites.	Quantitative and qualitative (survey: 2 rounds and interviews)	VIC	Midwives	Core (standard) midwives	Caseload in public hospital
Newton et al. (2021)[65]	To compare views of caseload midwives – those working in caseload models and those in standard care models in hospitals with and without caseload.	Quantitative (survey)	All	Midwives	None	Caseload in public hospital
Oliver et al. (2022)[52]	To investigate midwives' job satisfaction in Australian maternity care settings.	Quantitative and qualitative (survey)	National	Midwives	Included midwives across all models of care	No focus on caseload midwifery.
Sheehy et al. (2019)[41]	To explore the midwifery workforce experiences and participation in graduates six to seven years after completing a midwifery degree from one university in New South Wales.	Quantitative and qualitative (survey)	NSW	Midwives	Included midwives across all models of care	No focus on caseload midwifery.
Sheehy et al. (2021)[42]	To explore the experiences of early career midwives in Australia and identify the organisational, work environment, personal factors and stressors that influence workforce participation.	Qualitative (interviews)	NSW	Midwives	Included midwives across all models of care	No focus on caseload midwifery.
Styles et al. (2020)[50]	To explore the perceptions and experiences of midwifery and obstetric staff during the implementation and upscaling of midwifery CoMC.	Qualitative (interviews, 2 rounds of focus groups)	QLD	Midwives (including clinical midwifery managers, non-practising midwives and new graduates)	CoMC plus core midwives	Continuity of care in a regional hospital and health service.
Sullivan et al. (2011)[53]	Determine the factors that contribute to the retention of midwives.	Quantitative and qualitative (survey)	NSW	Midwives	Included midwives across all models of care	Not focused on caseload midwifery.
Walker et al. (2004)[62]	Investigated midwives' perception of a team midwifery model of care.	Qualitative (focus groups)	QLD	Midwives	Standard (core) hospital midwives	Team midwifery

53].

More than half the papers (17, 53 %) had no comparison group while ten (31 %) had comparison groups, generally non-CoMC, core, or standard midwives, including midwives working at hospitals with CoMC models and those working at hospital not providing CoMC. One paper compared two different models of CoMC [54]. Two papers also included pregnant women and their partners [55,56] while one paper included an obstetrician [55].

3.2. Description of the model of care

Four papers described modified CoMC models. One paper described a model where each midwife worked in partnership with another midwife, and on call hours were limited to 12 hours; with call outs of more than 12 hours, core midwives took over care [57]. Another described the integration of antenatal care with CoMC for women who had previously had a caesarean section to provide evidence-based options for birth [58]. A further paper compared two forms of CoMC: standard CoMC or a culturally sensitive CoMC model where midwives underwent training on cultural sensitivity and safety when working with Aboriginal and Torres Strait Islander women [54]. Two papers investigated the Midwifery Antenatal and Postnatal Service (MAPS) [55,56] that excluded birth from the care provided by the known midwife.

A total of ten (31 %) papers described the CoMC model as ‘midwifery group practice’ (MGP). Four (13 %) papers were either focused on or included ‘private midwifery care’ [46, 51, 59, 60]. Other models were described as ‘birth centre continuity of care’ [61] and ‘team midwifery’ [62]. All other papers used general terms such as ‘continuity of care’, ‘general continuity of care’ and ‘caseload midwifery’ with no further detail provided.

3.3. Review findings

Findings were classified into 5 main categories and sub-categories as displayed in Fig. 2 and supplementary table 1:

The analysis revealed that working within a continuity of midwifery carer model impacted the midwife’s partnerships with women, their professional satisfaction and professional relationships, how they perceived their work-life balance, and their psychological health and wellbeing.

3.3.1. Positive partnerships with women

Most of the included papers [37, 40, 41, 44, 45, 47–50, 52, 53, 55–57, 59–65] contributed data about the concept of partnership and the importance of the midwife-woman relationship for midwives providing continuity of care. Developing positive relationships with women and families over time facilitated a strong sense of professional purpose and sustained role satisfaction [53,62]. The relationship a midwife shared with a woman was consistently highlighted as one of the most positive and impactful aspects of working in CoMC [40, 52, 60, 62, 64, 65]. Midwives valued spending quality time with each woman, and better understanding their individual needs [37, 55, 56]. It was within the context of this relationship that midwives developed ‘trust’ [57] and an understanding of each woman’s needs and preferences [58]. Midwives used this knowledge to support and advocate for women [59,63] and described their relationship with women as a privilege [47]. Working in this way aligned with the core values of midwifery practice, fostered confidence [48] and sense of empowerment [41] and created a ‘deep passion’ for being a ‘known’ midwife [49].

Although the concept of partnership was one of the most positive aspects of working in a CoMC model, several studies highlighted the importance of midwives being able to set professional boundaries [6, 47, 61]. A critical aspect of this was managing women’s expectations [50] and remembering that, while the relationship reflected characteristics of a ‘friendship’, it was a closeness that was professional in nature and time-limited [47]. In addition, midwives acknowledged the need to develop a permission structure that allowed them to disengage and enjoy their time off without feeling stress and guilt that they were unavailable to the women in their caseload [44, 57, 61].

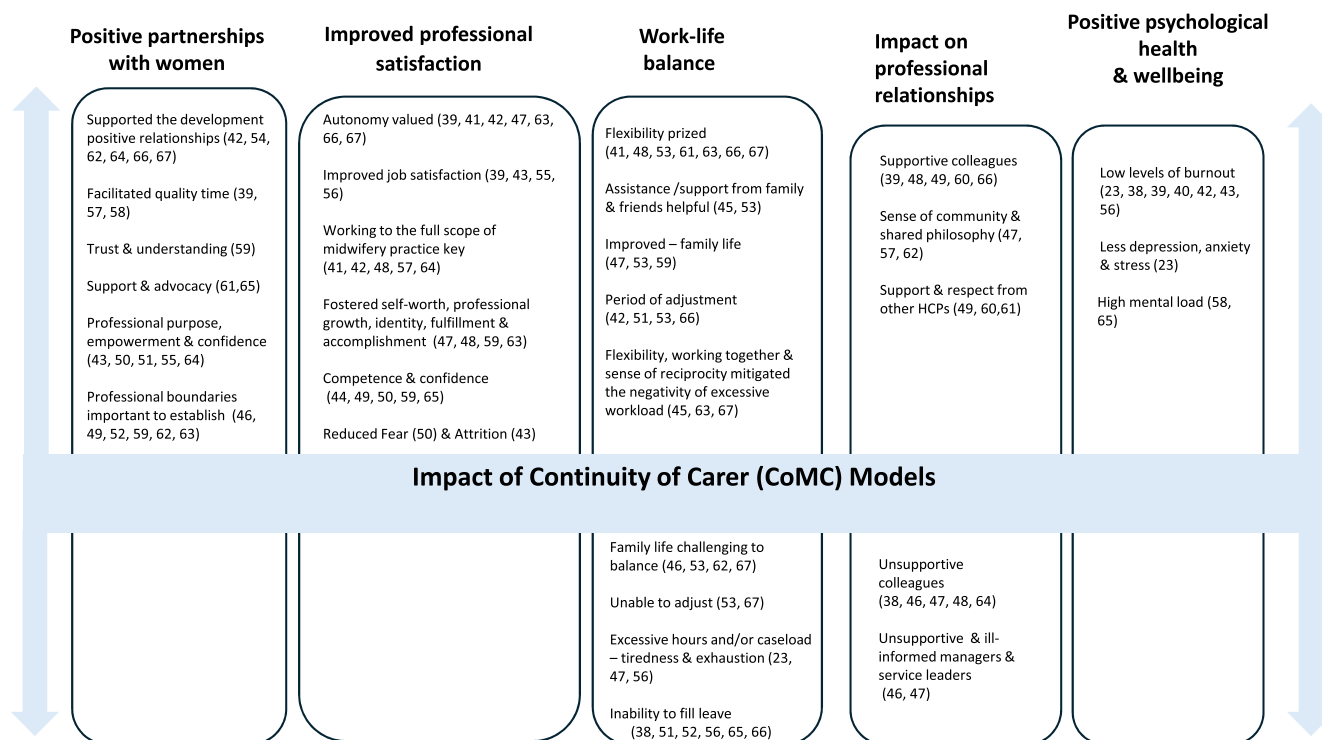


Fig. 2. Impact categories and sub-categories from included studies.

3.3.2. Improved professional satisfaction

Professional satisfaction incorporated three main concepts: autonomy, job satisfaction and working to the full scope of midwifery practice. Nine papers highlighted autonomy as a key professional benefit of working in CoMC models [37, 39, 40, 45, 46, 50, 61, 64, 65]. These papers included midwives in MGP, birth centres and hospital-based caseload models, with one study including a small number of private midwives. Notably the papers about partial continuity models (e.g. MAPS [57,58] and the next birth after caesarean service [60] did not discuss autonomy. Autonomy was described by midwives as having control over their working hours [39,64], their workload [45], and how work was organised [39,50]. Experiencing a sense of autonomy was also central to how midwives perceived their role within CoMC models enabling them to fully utilise their skills to provide 'individualised and holistic care' [45] and to optimise maternal and newborn outcomes, being accountable for their practice [42,61]. Autonomy fostered a sense of self-worth [61], professional growth and fulfillment in midwives [45].

Several papers reported that midwives working in CoMC models expressed high levels of job satisfaction [41, 53–55] and professional accomplishment [45, 57, 61]. Standardised tools to measure work habits and job satisfaction were used by a few researchers. For example, Dawson [37] and McLardie-Hore [54] used the Midwifery Process Questionnaire. This questionnaire has four subscales (professional satisfaction, professional support, client interaction, and professional development). High scores on each subscale equate with higher levels of satisfaction with the midwifery role. Dawson found that midwives working in CoMC scored significantly higher across all four domains compared with those midwives working in non-continuity models. Midwives working in an all-risk culturally sensitive CoMC and standard CoMC had positive attitudes towards their professional role across all subscales, with a trend towards higher mean scores in those midwives working in the culturally sensitive model [54]. Similarly, the earlier work of Collins et al. [64], who used the Attitudes to Professional Role Questionnaire [66], found that midwives' professional satisfaction, professional support and client interaction significantly increased over an 18-month period after commencing working in a CoMC (MGP) model.

Sheehy et al. [41] used two standardised tools to measure job satisfaction. Results from the Perceptions of Empowerment in Midwifery Scale found that midwives in CoMC models felt significantly more favourably about their professional growth and development in their practice environment compared to those working in other models. Results from the Practice Environment Scale-Nursing Working Index demonstrated that midwives working in CoMC models had significantly higher levels of perceived empowerment in their roles than those working in other models of care. Furthermore, they found working in CoMC was protective against negative factors associated with leaving the profession (such as less enthusiasm and motivation, and greater cynicism), compared to working in other models of care [41].

Working within a CoMC model also facilitated the midwife's ability to work to their full scope of practice [40, 46, 55, 62]. The full scope of midwifery practice refers to the comprehensive range of maternity care and services that midwives are educated, trained, and authorised to provide women and their families across the childbirth continuum [67]. Providing a woman with all her maternity care, as opposed to fragmented aspects such as only antenatal care, was highly valued by midwives and perceived as professionally satisfying. Midwives described working to their full scope as 'real midwifery' [39] and a way of practice that closely aligned with their midwifery philosophy [60]. Working in this way improved midwives' confidence [57,63] and developed their professional identity [46].

When exploring newly graduated midwives' experiences of CoMC, Cummins [47] and Sheehy [42] both found that providing care across pregnancy, birth and the transition to motherhood consolidated knowledge and skills, enhanced confidence and facilitated a sense of

autonomy. Similarly, Fenwick and associates [48] reported that working in CoMC reduced new graduates' fear of midwifery practice and increased their confidence.

3.3.3. Work-life balance

Nineteen of the thirty-two papers (59%) articulated midwives' perceptions of the impact of providing women with continuity of care on their work-life balance [21, 36, 39, 40, 43–46, 49–51, 54, 57, 59–61, 63–65].

Many midwives valued the flexibility of working in CoMC models compared to shift hospital-based midwifery [39, 46, 51, 59, 65]. Being able to choose their own start time [39] and have individual control over work hours [64] allowed midwives to arrange appointments and be available to women in a way that took into consideration the demands of their own personal lives [59,61]. Midwives perceived they had an increased capacity to participate in family life such as taking children to and from school [45], engaging in regular exercise regimes [51] and generally experiencing an improved social life [45,57]. Having the support and understanding of family assisted midwives to sustain a healthy balance between personal and professional life [27,51]. For some, working in CoMC was described as a lifestyle/career choice [44].

However, there was evidence that some midwives found arranging childcare challenging [51,65] with others describing having less family time [60], with life and family coming second to women in their care [44].

Several papers investigated the implementation of a CoMC models over time, highlighting a period of adjustment, particularly relating to on-call requirements with a variety of on-call modalities reported [51, 64]. Knowing the women in their care [39] helped reduce the unpredictability of on-call and work demands [40,49]. However, while most midwives adapted and developed strategies to manage being on call, some continued to find it hard to adapt [51,65]. Hewitt et al. [27] found that both midwifery managers and midwives acknowledged the difficulties some midwives faced in adjusting to the rhythm of working within the group and being on call.

Workload was a feature of the discussion. One national study described the full-time workload in CoMC models as 'excessive' [44] with another reporting that a quarter of midwives in CoMC in Melbourne, Victoria worked above their contracted hours each week [54]. While some midwives acknowledged long work hours, they did not think this was a deterrent to working in CoMC as it was counterbalanced with flexibility [65]. Conversely, others described having insufficient sleep and feeling exhausted [45,60]. Midwives further noted that they could not build effective relationships with women if they were responsible for caring for too many women, especially those with more complex care needs [54].

Workloads were impacted when CoMC midwives required leave (including sick, annual, and maternity leave). This was a reoccurring theme in several papers [36, 50, 54, 63] with challenges in backfilling positions [49] resulting in midwives being forced to carry higher case-loads [64]. Working in partnership with another midwife helped with the on-call load and leave relief [61], with many emphasising how important it was for all midwives to demonstrate a sense of reciprocity towards each other during times of high demand and work [27].

3.3.4. Impact on professional relationships

Across the papers, there were mixed findings on how CoMC work impacted on professional work relationships. There was clear evidence that many midwives felt well supported by their midwifery colleagues [37, 46, 47, 58, 64]. In several papers, midwives reported that working in a continuity model promoted a sense of community [55], belonging and a shared philosophy [45] that was born from aligning their practice with the professional philosophy of midwifery [60]. In addition, some midwives working in CoMC models reported improved relationships and collegiality with doctors [47] with midwives perceiving that they demonstrated a greater level of trust in them than in midwives working

in non-continuity models [49].

Although some midwives described positive support from core rostered midwives [47], there was evidence that this was not universal. Some midwives reported experiencing bullying and resentment, particularly of new staff and new graduates, from colleagues working in other models [44–46]. Some midwives working in CoMC experienced a lack of support by [44, 45, 47] or poor integration with [36] hospital core midwives who were employed in shift-based positions [68]. Walker [62] also identified that when women straddled different service models of care (for example, those requiring a postnatal admission), there was a potential for conflict to arise between midwives. For the most part this was related to differing views on who had responsibility for tasks such as maintaining care plans.

Furthermore, the review identified that midwives providing continuity of care often felt unsupported by their direct line manager as well as midwifery and nursing executive service leaders [44,45]. This included reports that highlighted a lack of understanding and recognition by the organisation of how CoMC models worked [64], on-call hours, their dedication and commitment to the women in their care, and pay rates that did not reflect their expertise and experience [44,45].

The recent work of Hewitt et al. [27, 43–45], exploring issues of sustainability and optimal management of CoMC models, highlighted the importance of managerial support. This research emphasised the need from midwifery managers to ‘midwife the midwives’, demonstrating leadership behaviours that reflect and foster respect, connection and worth, as well as providing regular supervision and encouraging professional development [27,43].

3.3.5. Positive psychological health and wellbeing

Taking on the role of primary care provider within a midwifery caseload model has often been associated with a negative professional discourse [21]. The pressure and responsibility of working in this way has been described by some as requiring a higher mental load [56,63] with the potential for burnout [36]. Nine studies (28 %) in this review explored the impact of providing continuity of care on the midwives’ emotional wellbeing [21, 36–38, 40, 41, 54, 56, 63].

Measuring burnout was a core feature of the literature reviewed. Five studies used the Copenhagen Burnout Inventory [21, 37, 38, 40, 54] and one used the Maslach Burnout Inventory [41]. Using the Copenhagen Burnout Inventory, Fenwick [21,38] and Dawson [37] demonstrated that midwives working in CoMC had significantly lower median scores for personal, work-related and client-related burnout than colleagues working in non-continuity models. Likewise, Newton et al. [40], in a longitudinally designed study, used the Copenhagen Burnout Inventory to measure and compare differences in midwives who commenced working in a caseload model of care compared to those providing standard care. Two years post-implementation of the CoMC model, midwives working in CoMC had significantly lower burnout scores on all three domains compared to their colleagues providing non-continuity of care. McLardie-Hore et al. [54] used the Copenhagen Burnout Inventory to measure and compare burnout between caseload midwives in an all-risk culturally responsive caseload and those in the standard caseload model. The paper found that burnout was low in both groups. Finally, Sheehy and associates [41], using the Maslach Burnout Inventory, demonstrated that midwives working in CoMC were less likely to display ‘unfeeling’ and ‘impersonal’ responses to women than others.

Fenwick and associates [21] also used the Depression, Anxiety and Stress Scale-21 to measure emotional wellbeing. These researchers found that midwives working in CoMC models reported significantly lower level of anxiety and depression compared to those working in non-continuity models. Results from the stress subscale, however, demonstrated no significant difference in stress levels in the two groups.

4. Discussion

To our knowledge, this is the first scoping review to report on the

broader impacts for midwives of working in CoMC models in Australia. Findings from the review indicate that midwives reported higher job satisfaction than those working in shift-based hospital maternity models [37,54]. Role satisfaction was attributed to greater autonomy, increased control over working hours, fulfilment of professional scope, development of professional identity and accountability [37, 46, 64, 65]. The evidence supporting CoMC is clear, with improved outcomes for women [18] and reduced healthcare costs [19] driving recommendations for increased implementation of these models as a key global strategy to improve maternal health and grow the midwifery workforce [20].

Despite the positive impacts for midwives working in CoMC, there are accounts of heavier mental load and professional responsibility [63], although there was no indication if this had a positive or negative impact. Increased responsibility and mental load may contribute to a greater sense of professional autonomy contributing to greater job satisfaction for midwives working in CoMC models. These findings are consistent with international research demonstrating higher job satisfaction related to autonomy and empowerment amongst midwives working in CoMC models [69,70]. The alignment of CoMC with midwifery professional philosophy and core professional values was a key finding of this review [38,59]. Descriptions were congruent with findings of international research on the emotion-work of midwifery, confirming that philosophically aligned, woman-centred care, provided in continuity models, reduced cognitive dissonance, and elevated midwives’ sense of emotional reward from their work [71].

The papers included in this review considered CoMC model as a ‘collective’ arrangement but did not account for significant variations in how each CoMC model was implemented. These differences could explain at least some of the variation in reported experiences of midwives working in these models. The papers consistently identified flexibility and control over work scheduling as factors contributing to greater job satisfaction and work-life balance for midwives in CoMC models [57], including scheduling of appointments [39,64]. A recent integrative review also highlighted that flexibility and individualised self-control over work practices underpinned job satisfaction and work-life balance for midwives working in CoMC models [72]. Despite the expansion of CoMC in Australia in the last decade, there has not been a contemporary review of workload models. To ensure the sustainability of both the model and the midwifery workforce, standardised data collection and reporting, and future workload modelling for CoMC is recommended.

When considering factors related to the CoMC model itself, management of on-call requirements was a clear point of concern [2, 10, 17, 22, 24]. Research in Canada [6] found the negative impact on midwives’ personal life, and lack of flexibility of the on-call schedule, was associated with intention to leave the profession. The authors argued that the solution lies with increased flexibility in terms of work structure and on-call requirements. Finding a balance between meeting the identified needs of women, service provider requirements [3] as well as the professional and personal needs of the midwife [3] could be the key to building participation in this model and reducing midwifery workforce attrition. Further research to explore the impact of CoMC model structure, including workload modelling and on-call variations on midwifery workforce sustainability, is needed. Factors associated with midwives’ ability to control their work hours, engage in part-time work patterns [44], manage their own work hours, and have flexibility around on-call hours may directly improve sustainability of CoMC models. Further consideration should be given to service and policy innovation to balance providing improved outcomes for women, whilst ensuring a sustainable model for midwives working in CoMC models.

Attrition rates in the broader midwifery profession are at an all-time high [73], with dissonance between professional philosophy and workplace practices or culture being suggested as a contributing factors [23]. The reduced dissonance experienced by midwives working in CoMC may contribute to greater retention in the midwifery workforce and reduced professional attrition. While CoMC models in Australia

have long been recognised as having benefits for women [3], the findings of this review demonstrates that these models also benefit midwives through increased job satisfaction and contribute to improved workforce retention.

Despite the positive impacts of working within a CoMC model [70], persistent misconceptions, implying high rates of burnout and dissatisfaction, may hinder the broader adoption of CoMC models across Australia. It is crucial to address these misconceptions, and entrenched and unsubstantiated beliefs by disseminating evidence on the impacts of working in CoMC for midwives to ensure the sustainability of this model for midwives.

4.1. Strengths and limitations

This review provides a structured synthesis of evidence regarding the impacts of working in CoMC on Australian midwives. The review focused solely on midwives working in Australia so the transferability of findings should be considered carefully by readers working in other settings.

CoMC is a broad term encompassing variations in the provision of care that focuses on improving relational continuity between a woman and her midwife. For example, there are notable differences between CoMC provided by midwives in private practice and those employed by a hospital, and between those providing continuity across the full continuum of care or focussed only on continuity of antenatal and postnatal care. Due to heterogeneity in reporting, capturing these differences was challenging. Furthermore, variations in leadership structures and cultural differences exist across different models of CoMC making it challenging to assess their impacts. The strengths of this review lie in the methodological rigour provided by the JBI scoping review framework. The research team of experts from diverse professional and research backgrounds have contributed to a comprehensive analysis. Detailed descriptions provided in the review support readers to appraise the transferability of findings to other settings.

5. Conclusions

This review has provided a structured synthesis of evidence regarding the impacts of working in CoMC for Australian midwives. These impacts are mostly positive, with evidence of lower levels of intention to leave the workforce and reduced levels of burnout, compared to those working in shift-based models of care. Alignment with professional philosophy, increased opportunities for scope fulfilment and autonomous practice were key contributors to the positive impacts of this model. The effect of variations in on-call arrangements were identified as an area for future research. This synthesis of evidence supports the continuation of key features of CoMC models in Australia and identifies areas for further exploration. Findings are relevant for strategic national workforce planning and clinical leadership at service provider level. Considering the beneficial nature of CoMC models outlined in this review, and the strategic global focus on midwifery models of care, maternity services worldwide may consider these findings to improve the recruitment and retention of skilled midwives.

Author declaration

The authors declare:

- that the article is the author(s) original work.
- the article has not received prior publication and is not under consideration for publication elsewhere.
- that all authors have seen and approved the manuscript being submitted.
- the author(s) abide by the copyright terms and conditions of Elsevier and the Australian College of Midwives.

CRedit authorship contribution statement

MH (Conceptualization; development of search strategy; design and writing of drafts; editing/writing of final manuscript); JF (Conceptualization; design and writing of drafts; review, editing; approval of final manuscript); JR (Development of search strategy; design and writing of drafts; review, editing; and approval of final manuscript); KS (Development of search strategy; editing and appraisal of drafts; review, editing; and approval of final manuscript); CW (Development of search strategy; editing and appraisal of drafts; review, editing, and approval of final manuscript); MR (review, editing; approval of final manuscript); CH (Conceptualization; editing and appraisal of drafts; review, editing, and approval of final manuscript); JG (Conceptualization; editing and appraisal of drafts; review, editing, and approval of final manuscript); KB (Conceptualization; editing and appraisal of drafts; review, editing, and approval of final manuscript); ZB (Conceptualization; design and writing of drafts; review, editing, and approval of final manuscript)

Ethical approval

Since this was a scoping review and did not involve any original research, ethics approval was not required.

Declaration of Generative AI and AI-assisted technologies in the writing process

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Declaration of Competing Interest

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Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at [doi:10.1016/j.wombi.2025.101932](https://doi.org/10.1016/j.wombi.2025.101932).

References

- [1] Australian College of Midwives, *Delivering midwifery continuity of care to Australian women: A handbook for hospitals and health services*, Australian College of Midwives, Canberra, 2017.
- [2] COAG Health Council, *Woman-centred care: Strategic directions for Australian maternity services*, Department of Health, Canberra, 2019.
- [3] L. Faktor, K. Small, Z. Bradfield, K. Baird, J. Fenwick, J.E. Gray, et al., What do women in Australia want from their maternity care: a scoping review, *Women Birth* 37 (2) (2024) 278–287. Epub 20231222. doi: (<https://doi.org/10.1016/j.wombi.2023.12.003>). PubMed PMID: 38142159.
- [4] C.S. Homer, G.K. Davis, P.M. Brodie, A. Sheehan, L.M. Barclay, J. Wills, et al., Collaboration in maternity care: a randomised controlled trial comparing community-based continuity of care with standard hospital care, *Br. J. Obstet. Gynaecol.* 108 (1) (2001) 16–22.

- [5] H. McLachlan, D. Forster, M. Davey, T. Farrell, L. Gold, M. Biro, et al., Effects of continuity of care by a primary midwife (caseload midwifery) on caesarean section rates in women of low obstetric risk: the COSMOS randomised controlled trial, *BJOG Int. J. Obstet. Gynaecol.* 119 (12) (2012) 1483–1492, <https://doi.org/10.1111/j.1471-0528.2012.03446.x>.
- [6] K. Stoll, J. Gallagher, A survey of burnout and intentions to leave the profession among Western Canadian midwives, *Women Birth* 32 (4) (2019) e441–e449. Epub 20181017. doi: (<https://dx.doi.org/10.1016/j.wombi.2018.10.002>). PubMed PMID: 30341004.
- [7] D. Turnbull, P. Baghurst, C. Collins, C. Cornwell, A. Nixon, R. Donnellan-Fernandez, et al., An evaluation of midwifery group practice. part i: clinical effectiveness, *Women Birth* 22 (1) (2009) 3–9, <https://doi.org/10.1016/j.wombi.2008.10.001>.
- [8] D.L. Hartz, J. Blain, S. Caplice, T. Allende, S. Anderson, B. Hall, et al., Evaluation of an Australian aboriginal model of maternity care: the malabar community midwifery link service, *Women Birth* 32 (5) (2019) 427–436, <https://doi.org/10.1016/j.wombi.2019.07.002>.
- [9] H.L. McLachlan, M. Newton, F.E. McLardie-Hore, P. McCalman, M. Jackomos, G. Bundle, et al., Translating evidence into practice: implementing culturally safe continuity of midwifery care for First Nations women in three maternity services in Victoria, Australia, *eClinicalMedicine* 47 (2022), <https://doi.org/10.1016/j.eclinm.2022.101415>.
- [10] H. Rayment-Jones, K. Dalrymple, J. Harris, A. Harden, E. Parslow, T. Georgi, et al., Project20: Does continuity of care and community-based antenatal care improve maternal and neonatal birth outcomes for women with social risk factors? A prospective, observational study, *PLOS One* 16 (5) (2021), <https://doi.org/10.1371/journal.pone.0250947>.
- [11] N. Leap, J. Sandall, S. Buckland, U. Huber, Journey to confidence: Women's experiences of pain in labour and relational continuity of care, *J. Midwifery Women's Health* 55 (3) (2010) 234–242, <https://doi.org/10.1016/j.jmwh.2010.02.001>.
- [12] S. Kildea, G. Simcock, A. Liu, G. Elgebeili, D.P. Laplante, A. Kahler, et al., Continuity of midwifery carer moderates the effects of prenatal maternal stress on postnatal maternal wellbeing: the Queensland flood study, *Arch. Women's Ment. Health* 21 (2) (2018) 203–214. Epub 20170927. doi: 10.1007/s00737-017-0781-2. PubMed PMID: 28956168.
- [13] S. Poggianella, E. Ambrosi, L. Mortari, Women's experience of continuity of midwifery care in North-Eastern Italy: a qualitative study, *Eur. J. Midwifery* 7 (2023) 4. Epub 20230215. doi: 10.18332/ejm/159358. PubMed PMID: 36815945; PubMed Central PMCID: PMC9930607.
- [14] J. Fereday, C. Collins, D. Turnbull, J. Pincombe, C. Oster, An evaluation of midwifery group practice, Part II: Women's Satisf. *Women Birth* 22 (1) (2009) 11–16. Epub 20081015. doi: 10.1016/j.wombi.2008.08.001. PubMed PMID: 18926788.
- [15] S. Boyle, H. Thomas, F. Brooks, Women's views on partnership working with midwives during pregnancy and childbirth, *Midwifery* 32 (2016) 21–29, <https://doi.org/10.1016/j.midw.2015.09.001>.
- [16] N. Perriman, D.L. Davis, S. Ferguson, What women value in the midwifery continuity of care model: a systematic review with meta-synthesis, *Midwifery* 62 (2018) 220–229, <https://doi.org/10.1016/j.midw.2018.04.011>.
- [17] I. Jepsen, E. Mark, M. Foureur, E.A. Nohr, E.E. Sorensen, A qualitative study of how caseload midwifery is experienced by couples in Denmark, *Women Birth* 30 (1) (2017) e61–e69, <https://doi.org/10.1016/j.wombi.2016.09.003>.
- [18] J. Sandall, C. Fernandez Turienzo, D. Devane, H. Soltani, P. Gillespie, S. Gates, et al., Midwife continuity of care models versus other models of care for childbearing women, *Cochrane Database Syst. Rev.* 4 (4) (2024) Cd004667. Epub 20240410. doi: (<https://doi.org/10.1002/14651858.CD004667.pub6>). PubMed PMID: 38597126; PubMed Central PMCID: PMC11005019.
- [19] E.J. Callander, V. Slavina, J. Gamble, D.K. Creedy, H. Brittain, Cost-effectiveness of public caseload midwifery compared to standard care in an Australian setting: a pragmatic analysis to inform service delivery, *Int. J. Qual. Health Care* 33 (2) (2021), <https://doi.org/10.1093/intqhc/mzab084>.
- [20] World Health Organisation. Transitioning to midwifery models of care: global position paper. Geneva 2024.
- [21] J. Fenwick, M. Sidebotham, J. Gamble, D.K. Creedy, The emotional and professional wellbeing of Australian midwives: a comparison between those providing continuity of midwifery care and those not providing continuity, *Women Birth* 31 (1) (2018) 38–43, <https://doi.org/10.1016/j.wombi.2017.06.013>.
- [22] E. Cramer, B. Hunter, Relationships between working conditions and emotional wellbeing in midwives, *Women Birth* 32 (6) (2019) 521–532. Epub 20181219. doi: 10.1016/j.wombi.2018.11.010. PubMed PMID: 30578019.
- [23] Homer C., Small K., Warton C., Bradfield Z., Fenwick J., Gray J., et al. Midwifery Futures - Building the future Australian midwifery workforce. A research project commissioned by the Nursing and Midwifery Board of Australia, Burnet Institute, Curtin University and the University of Technology Sydney, 2024 23 October.
- [24] Warton C., Small K., Bradfield Z., Baird K., Fenwick J., Robinson M., Gray, J., & Homer, C. Experiences of midwifery education: A survey of midwifery students in Australia. *Nursing Education in Practice*. Under review. Warton C, Small K, Bradfield Z, Baird K, Fenwick J, Robinson M, et al. The future midwifery workforce: A survey of the education experiences of midwifery students in Australia. *Nurse Education in Practice*. 2025;84:104321 doi (<https://doi.org/10.1016/j.nepr.2025.104321>).
- [25] Select Committee on Birth Trauma. Birth trauma, South Wales. Parliament. Legislative Council. Select Committee on Birth Trauma, Sydney: New, 2024.
- [26] Universal access to reproductive healthcare. Community Affairs References Committee: Commonwealth of Australia; 2023.
- [27] L. Hewitt, A. Dadich, D.L. Hartz, H.G. Dahlen, Management and sustainability of midwifery group practice: thematic and lexical analyses of midwife interviews, *Women Birth* 35 (2) (2022) 172–183, <https://doi.org/10.1016/j.wombi.2021.05.002>. PubMed PMID: 2012216013.
- [28] M.D.J. Peters, C. Marnie, A.C. Tricco, D. Pollock, Z. Munn, L. Alexander, et al., Updated methodological guidance for the conduct of scoping reviews, *JB Evid. Synth.* 18 (10) (2020) 2119–2126, doi: (<https://dx.doi.org/10.11124/jbies-20-00167>), PubMed PMID: 02174543-202010000-00004.
- [29] M.D.J. Peters, C. Marnie, H. Colquhoun, C.M. Garrity, S. Hempel, T. Horsley, et al., Scoping reviews: reinforcing and advancing the methodology and application, *Syst. Rev.* 10 (1) (2021) 263, <https://doi.org/10.1186/s13643-021-01821-3>.
- [30] A.C. Tricco, E. Lillie, W. Zarin, K.K. O'Brien, H. Colquhoun, D. Levac, et al., PRISMA extension for scoping reviews (PRISMA-ScR): checklist and explanation, *Ann. Intern. Med.* 169 (7) (2018) 467–473, <https://doi.org/10.7326/m18-0850>.
- [31] J. McGowan, S. Straus, D. Moher, E.V. Langlois, K.K. O'Brien, T. Horsley, et al., Reporting scoping reviews-PRISMA ScR extension, *J. Clin. Epidemiol.* 123 (2020) 177–179, <https://doi.org/10.1016/j.jclinepi.2020.03.016>. Epub 20200327. PubMed PMID: 32229248.
- [32] Barclay L.M., Brodie P., Lane K., Leap N., Reiger K.M., Tracy S. The Australian Midwifery Action Report. 2003.
- [33] Covidence systematic review software, Veritas Health Innovation, Melbourne, Victoria, 2024.
- [34] S. Elo, H. Kyngäs, The qualitative content analysis process, *J. Adv. Nurs.* 62 (1) (2008) 107–115, doi: (<https://dx.doi.org/10.1111/j.1365-2648.2007.04569.x>). PubMed PMID: 18352969.
- [35] D. Pollock, M.D.J. Peters, H. Khalil, P. McInerney, L. Alexander, A.C. Tricco, et al., Recommendations for the extraction, analysis, and presentation of results in scoping reviews, *JB Evid. Synth.* 21 (3) (2023) 520–532, doi: (<https://dx.doi.org/10.11124/jbies-22-00123>). PubMed PMID: 02174543-202303000-00007.
- [36] K. Dawson, H. McLachlan, M. Newton, D. Forster, Implementing caseload midwifery: Exploring the views of maternity managers in Australia - A national cross-sectional survey, *Women Birth* 29 (3) (2016) 214–222, <https://doi.org/10.1016/j.wombi.2015.10.010>. PubMed PMID: 606999461.
- [37] K. Dawson, M. Newton, D. Forster, H. McLachlan, Comparing caseload and non-caseload midwives' burnout levels and professional attitudes: a national, cross-sectional survey of Australian midwives working in the public maternity system, *Midwifery* 63 (2018) 60–67, <https://doi.org/10.1016/j.midw.2018.04.026>. PubMed PMID: 625859760.
- [38] J. Fenwick, A. Lubomski, D.K. Creedy, M. Sidebotham, Personal, professional and workplace factors that contribute to burnout in Australian midwives, *J. Adv. Nurs.* 74 (4) (2018) 852–863, <https://doi.org/10.1111/jan.13491>. PubMed PMID: 623921389.
- [39] M.S. Newton, H.L. McLachlan, D.A. Forster, K.F. Willis, Understanding the 'work' of caseload midwives: a mixed-methods exploration of two caseload midwifery models in Victoria, Australia, *Women Birth* 29 (3) (2016) 223–233, <https://doi.org/10.1016/j.wombi.2015.10.011>. PubMed PMID: 609104942.
- [40] M.S. Newton, H.L. McLachlan, K.F. Willis, D.A. Forster, Comparing satisfaction and burnout between caseload and standard care midwives: findings from two cross-sectional surveys conducted in Victoria, Australia, *BMC Pregnancy Childbirth* 14 (2014) 426, <https://doi.org/10.1186/s12884-014-0426-7>. PubMed PMID: 25539601; PubMed Central PMCID: PMC4314764.
- [41] A. Sheehy, R.M. Smith, J.E. Gray, C.S.E. Homer, Midwifery pre-registration education and mid-career workforce participation and experiences, *Women Birth* 32 (2) (2019) e182–e188, <https://doi.org/10.1016/j.wombi.2018.06.014>. PubMed PMID: 2000913212.
- [42] D.A. Sheehy, M.R. Smith, P.J. Gray, P.C.H. Ao, Understanding workforce experiences in the early career period of Australian midwives: insights into factors which strengthen job satisfaction, *Midwifery* 93 (2021) doi: (<https://dx.doi.org/10.1016/j.midw.2020.102880>). PubMed PMID: 63355297.
- [43] L. Hewitt, A. Dadich, D.L. Hartz, H.G. Dahlen, Midwife-centred management: a qualitative study of midwifery group practice management and leadership in Australia, *BMC Health Serv. Res.* 22 (1) (2022) 1203, <https://doi.org/10.1186/s12913-022-08532-y>.
- [44] L. Hewitt, A. Dadich, D.L. Hartz, H.G. Dahlen, Midwifery group practice workforce in Australia: a cross-sectional survey of midwives and managers, *Women Birth* 37 (1) (2024) 206–214, <https://doi.org/10.1016/j.wombi.2023.09.002>. PubMed PMID: 2027052511.
- [45] L. Hewitt, A. Dadich, D.L. Hartz, H.G. Dahlen, The sustainability of midwifery group practice: a cross-sectional study of midwives and managers, *Women Birth* 37 (3) (2024) 101602 doi: (<https://dx.doi.org/10.1016/j.wombi.2024.101602>). PubMed PMID: 2031159052.
- [46] C.J. Catling, F. Reid, B. Hunter, Australian midwives' experiences of their workplace culture, *Women Birth* 30 (2) (2017) 137–145, <https://doi.org/10.1016/j.wombi.2016.10.001>. PubMed PMID: 614030931.
- [47] A.M. Cummins, E. Denney-Wilson, C.S. Homer, The experiences of new graduate midwives working in midwifery continuity of care models in Australia, *Midwifery* 31 (4) (2015) 438–444, <https://doi.org/10.1016/j.midw.2014.12.013>. PubMed PMID: 611925463.
- [48] J. Fenwick, A. Hammond, J. Raymond, R. Smith, J. Gray, M. Foureur, et al., Surviving, not thriving: a qualitative study of newly qualified midwives' experience of their transition to practice, *J. Clin. Nurs.* 21 (13–14) (2012) 2054–2063, <https://doi.org/10.1111/j.1365-2702.2012.04090.x>. PubMed PMID: 364996822.
- [49] L. McKellar, J.A. Fleet, P. Adelson, 'There is no other option': exploring health care providers' experiences implementing regional multisite midwifery model of care in

- South Australia, *Aust. J. Rural Health* 32 (1) (2024) 67–79, <https://doi.org/10.1111/ajr.13066>. PubMed PMID: 642810223.
- [50] C. Styles, L. Kearney, K. George, Implementation and upscaling of midwifery continuity of care: the experience of midwives and obstetricians, *Women Birth* 33 (4) (2020) 343–351, <https://doi.org/10.1016/j.wombi.2019.08.008>. PubMed PMID: 2002732089.
- [51] J. Fereday, C. Oster, Managing a work-life balance: the experiences of midwives working in a group practice setting, *Midwifery* 26 (3) (2010) 311–318, <https://doi.org/10.1016/j.midw.2008.06.004>. PubMed PMID: 50248482.
- [52] K. Oliver, S. Geraghty, A mixed-methods pilot study exploring midwives' job satisfaction: Is being of service to women the key? *Eur. J. Midwifery* 6 (2022) 25. Epub 20220419. doi: (<https://dx.doi.org/10.18332/ejm/146087>). PubMed PMID: 35528265; PubMed Central PMCID: PMC9017022.
- [53] K. Sullivan, L. Lock, C.S.E. Homer, Factors that contribute to midwives staying in midwifery: a study in one area health service in New South Wales, Australia, *Midwifery* 27 (3) (2011) 331–335, <https://doi.org/10.1016/j.midw.2011.01.007>. PubMed PMID: 51343638.
- [54] F.E. McLardie-Hore, H.L. McLachlan, D.A. Forster, S. Holmlund, P. McCalman, M. S. Newton, Comparing the views of caseload midwives working with First Nations families in an all-risk, culturally responsive model with midwives working in standard caseload models, using a cross-sectional survey design, *Women Birth* 36 (5) (2023) 469–480, <https://doi.org/10.1016/j.wombi.2023.05.006>. PubMed PMID: 2025522738.
- [55] A. Cummins, K. Griew, C. Devonport, W. Ebbett, C. Catling, K. Baird, Exploring the value and acceptability of an antenatal and postnatal midwifery continuity of care model to women and midwives, using the quality maternal newborn care framework, *Women Birth* 35 (1) (2022) 59–69, <https://doi.org/10.1016/j.wombi.2021.03.006>. PubMed PMID: 2011408986.
- [56] A. Cummins, C. Booth, K. Lennon, K. McLaughlin, E. Prussing, L. Newnham, "A safe space"; a statewide evaluation of midwifery antenatal and postnatal service (MAPS) using the quality maternal newborn care, evidence informed framework, *Women Birth* 37 (5) (2024) 101642, <https://doi.org/10.1016/j.wombi.2024.101642>. PubMed PMID: 2033087907.
- [57] A. Kashani, J.L. Ingberg, I. Hildingsson, Caseload midwifery in a rural Australian setting: a qualitative descriptive study, *Eur. J. Midwifery* 5 (2021) 2. Epub 20210119. doi: (<https://dx.doi.org/10.18332/ejm/131240>). PubMed PMID: 33537651; PubMed Central PMCID: PMC7839082.
- [58] T. Martin, Y. Hauck, J. Fenwick, J. Butt, J. Wood, Midwives' experiences of working in a new service delivery model: the next birth after caesarean service, *Evid. Based Midwifery* 13 (1) (2015) 10–14.
- [59] M. Barker, J. Fenwick, J. Gamble, Midwives' experiences of transitioning into private practice with visiting access in Australia: a qualitative descriptive study, *Int. J. Childbirth* 9 (3) (2019) 145–157, <https://doi.org/10.1891/IJCBIRTH-D-19-00031>.
- [60] Z. Bradfield, Y. Hauck, M. Kelly, R. Duggan, It's what midwifery is all about': Western Australian midwives' experiences of being 'with woman' during labour and birth in the known midwife model, *BMC Pregnancy Childbirth* 19 (1) (2019) 29, <https://doi.org/10.1186/s12884-018-2144-z>.
- [61] M.C. Edmondson, S.B. Walker, Working in caseload midwifery care: The experience of midwives working in a birth centre in North Queensland, *Women Birth* 27 (1) (2014) 31–36, <https://doi.org/10.1016/j.wombi.2013.09.003>.
- [62] S.B. Walker, H.D. Moore, A. Eaton, North Queensland midwives' experience with a team model of midwifery care, *Aust. J. Midwifery* 17 (1) (2004) 17–22. PubMed PMID: 38601817.
- [63] L. Barnett, Y.L. Hauck, L. Lewis, Midwives' journey through the first year of a hospital-based midwifery group practice, *Int. J. Childbirth* 6 (4) (2016) 197–205, <https://doi.org/10.1891/2156-5287.6.4.197>.
- [64] C.T. Collins, J. Fereday, J. Pincombe, C. Oster, D. Turnbull, An evaluation of the satisfaction of midwives' working in midwifery group practice, *Midwifery* 26 (4) (2010) 435–441, <https://doi.org/10.1016/j.midw.2008.09.004>. PubMed PMID: 50651739.
- [65] M. Newton, K. Dawson, D. Forster, H. McLachlan, Midwives' views of caseload midwifery - comparing the caseload and non-caseload midwives' opinions. A cross-sectional survey of Australian midwives, *Women Birth* 34 (1) (2021) e47–e56, <https://doi.org/10.1016/j.wombi.2020.06.006>. PubMed PMID: 2007001271.
- [66] D. Turnbull, M. Reid, M.C. McGinley, N.R. Shields, Changes in midwives' attitudes to their professional role following the implementation of the midwifery development unit, *Midwifery* 11 (3) (1995) 110–119.
- [67] Nursing and Midwifery Board of Australia. Midwife standards of practice. APHRA; 2018.
- [68] A. Gilkison, J. McAra-Couper, A. Fielder, M. Hunter, D. Austin, The core of the core: What is at the heart of hospital core midwifery practice in New Zealand? *N. Z. Coll. Midwives J.* 53 (2017) 30–37, <https://doi.org/10.12784/nzcomjnl53.2017.4.30-37>.
- [69] L. Dixon, K. Guilliland, J. Pallant, M. Sidebotham, J. Fenwick, J. McAra-Couper, The emotional wellbeing of NZ midwives comparing responses for midwives in caseloading and shift work settings, *N. Z. Coll. Midwives J.* 53 (2017) 5–14.
- [70] N. Suleiman-Martos, L. Albendin-Garcia, J.L. Gomez-Urquiza, K. Vargas-Roman, L. Ramirez-Baena, E. Ortega-Campos, et al., Prevalence and predictors of burnout in midwives: a systematic review and meta-analysis, *Int. J. Environ. Res. Public Health* 17 (2) (2020), <https://doi.org/10.3390/ijerph17020641>. Epub 20200119. PubMed PMID: 31963831; PubMed Central PMCID: PMC7013833.
- [71] B. Hunter, Conflicting ideologies as a source of emotion work in midwifery, *Midwifery* 20 (3) (2004) 261–272, <https://doi.org/10.1016/j.midw.2003.12.004>. PubMed PMID: 15337282.
- [72] A. Hanley, D. Davis, E. Kurz, Job satisfaction and sustainability of midwives working in caseload models of care: an integrative literature review, *Women Birth* 35 (4) (2022) e397–e407, <https://doi.org/10.1016/j.wombi.2021.06.003>. Epub 20210710. PubMed PMID: 34257046.
- [73] E. Callander, M. Sidebotham, D. Lindsay, J. Gamble, The future of the Australian midwifery workforce - impacts of ageing and workforce exit on the number of registered midwives, *Women Birth* 34 (1) (2021) 56–60, <https://doi.org/10.1016/j.wombi.2020.02.023>. Epub 20200406. PubMed PMID: 32273195.