



## The future midwifery workforce: A survey of the education experiences of midwifery students in Australia

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### ABSTRACT

**Aim:** To understand students' views on and experiences of their pre-registration midwifery education in Australia, including continuity of care experiences and clinical practice placements and their preferences for future employment.

**Background:** Increasing the number of midwifery student enrolments and improving student experience are suggested solutions to shortages in the Australian midwifery workforce.

**Design:** An anonymous online survey.

**Methods:** Open to students currently enrolled in an education programme leading to Australian midwifery registration or who had recently completed such a programme but had not yet commenced employment. Quantitative data were analysed through descriptive statistics and chi-squared tests. Frequency counts and inductive content analysis were used to analyse qualitative data. This research was undertaken as part of the national Midwifery Futures project.

**Results:** A total of 303 eligible responses were received. While most students felt their midwifery education prepared them well for future practice, a third ( $n = 93/281$ , 33.1%) had taken or were considering leave and more than half ( $n = 161/281$ , 57.3%) had considered withdrawing. Continuity of care experiences were highly valued by students as an educational experience. Nearly all students ( $n = 257/278$ , 92.4%) preferred future employment in a clinical midwifery role and most ( $n = 206/257$ , 80.2%) wished to work in midwifery group practice or team midwifery service in a public hospital.

**Conclusions:** Midwifery students in Australia felt well-prepared by their education programmes to practice midwifery. However, many students also found meeting the requirements of their degree challenging. Further research and efforts are required to support students to complete their midwifery education.

### 1. Introduction

Midwives are internationally recognised as skilled professionals who provide care for childbearing women, newborn infants and families throughout pregnancy, childbirth and the postpartum period (Patterson et al., 2019; World Health Organization, 2024a). Research evidence demonstrates maternity care provided by midwives is associated with improved health outcomes for women and newborns (World Health Organization, 2024a; Combellick et al., 2023; ten Hoope-Bender et al., 2014). However, the global midwifery workforce is in crisis, with many

countries reporting significant workforce shortages and challenges with retention and attrition (World Health Organization, 2024b; Royal College of Midwives, 2021; Council of Deans of Nursing and Midwifery Australia and New Zealand, 2024). The Australian National Skills Priority List identified midwives as an occupational shortage across all states and territories for 2022 and 2023 (Job and Skills Australia, 2024). The number of practising midwives aged 45–54 in Australia has fallen by 40% since 2013 and retaining newly qualified midwives has become challenging (Council of Deans of Nursing and Midwifery Australia and New Zealand, 2023). Increasing the number of student enrolments and

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improving student experience of pre-registration midwifery education have been strategies suggested as potential solutions to workforce attrition (Council of Deans of Nursing and Midwifery Australia and New Zealand, 2023). Understanding the educational experiences of midwifery students is therefore vital in supporting students' educational success and bolstering the future midwifery workforce.

Midwifery registration in Australia can be gained through either undergraduate or postgraduate programmes. Programmes that qualify students for registration as a midwife are approved by the Nursing and Midwifery Board of Australia. At the time of writing, 34 programmes were offered by 24 providers (Ahpra and National Boards, 2024). Programmes are available across all states and territories, as well as two programmes that offer online education. Midwifery students are required to meet specific practice standards to achieve registration as a midwife in Australia, including the completion of Continuity of Care Experiences (CoCEs) and specific clinical practice experiences (Australian Nursing and Midwifery Accreditation Council, 2021)<sup>1</sup>. Continuity of Care Experiences and clinical practice placements enable midwifery students to gain clinical experience providing professional support to women during pregnancy, labour and birth and the early parenting period (Gray et al., 2013).

In this study, we aimed to understand students' views on and experiences of their pre-registration midwifery education in Australia, including their view on CoCE and clinical practice placements requirements. Additionally, we asked midwifery students about their postgraduate employment preferences to inform and gain an understanding of the intended transition from pre-registration education into the midwifery workforce. This survey was designed and undertaken as part of the national Midwifery Futures project, (Homer et al., 2024) which more broadly aimed to review the current state and future needs of the Australian midwifery workforce.

## 2. Methods

### 2.1. Survey

An anonymous survey was developed to understand the education experiences and future employment preferences of pre-registration midwifery students in Australia. The survey was developed by professionals with relevant expertise in research, clinical midwifery, tertiary education, public health, bioethics and obstetrics. An explanatory statement was provided to students at outset of the survey. Respondents were asked questions pertaining to their midwifery education experience, including their placement experience and views on CoCE requirements, as well as their postgraduate employment preferences and demographic information (see Supplement I for survey instrument). Quantitative questions were collected as both continuous (two questions) and categorical (38 questions) variables, including 14 five-point Likert scales. Qualitative data were collected using open-ended questions (Gray et al., 2013). Ethical approval was granted by the Alfred Hospital Ethics Committee (Project ID #102767).

<sup>1</sup> Current accreditation standards require midwifery students to engage with a minimum of 10 women in a Continuity of Care Experience (CoCE) by attending four antenatal and two postnatal episodes of care and, for the majority of women, the labour and birth. Accreditation standards additionally require students to attend 100 antenatal and 100 postnatal episodes of care, act as the primary birth attendant for 30 women experiencing spontaneous vaginal birth, provide direct and active care to an additional 10 women throughout the first stage of labour, care for 40 women with complex needs and experience 20 full examinations of a newborn infant.(2) While these may include the women followed by students through their COCE, education providers often offer students the opportunity to meet these requirements through clinical placements.

### 2.2. Participants

Participants were eligible to complete the survey if they were currently enrolled in an education programme in Australia leading to midwifery registration or had recently completed such a programme but had not yet commenced employment as a midwife.

### 2.3. Recruitment

The survey was made available online via REDCap. The Nursing and Midwifery Board of Australia (NMBA) invited all currently registered students to complete the survey via email on behalf of the research team. The upkeep of NMBA records of active student email addresses relies on the provision of tertiary registration information from relevant education providers and may not always be up to date. Additional recruitment was therefore conducted through relevant social media advertisements. Participants were invited to complete the survey between November – December 2023.

### 2.4. Data analysis

Data were analysed using R 4.3.3 (R Foundation, Vienna, Austria) and NVivo 14 (QSR International). Descriptive statistics were calculated for each quantitative question. Pearson's chi-square test was used to determine the association between categorical nominal variables where appropriate. Considering response quality, most qualitative responses were frequency counted and conveyed through descriptive statistics. Four qualitative free-text questions that produced rich responses were analysed in NVivo using inductive content analysis (Vears and Gillam, 2022).

## 3. Results

The total number of survey responses received was 338. Three were excluded, as these respondents indicated they had never enrolled in a tertiary midwifery degree. A further 32 responses were deemed ineligible as they did not answer questions beyond basic enrolment details. Incomplete responses were otherwise included in analysis. A total of 303 responses were included for analysis.

Most students were undertaking a Bachelor of Midwifery ( $n = 214/303$ , 70.6%) and approximately two-thirds were enrolled on a full-time basis ( $n = 231/302$ , 76.5%). Women represented most respondents ( $n = 259/264$ , 98.1%). Most participants ( $n = 198/303$ , 78.2%) were younger than 40 years old. Ten participants ( $n = 10/303$ , 3.8%) identified as being Aboriginal (Table 1).

A third of students ( $n = 101/303$ , 33.3%) were employed as a healthcare professional other than a midwife while enrolled in their degree. These students were largely employed as a registered or enrolled nurse ( $n = 77/101$ , 76.2%). A small number ( $n = 14/101$ , 13.9%) of students indicated employment as an assistant in midwifery or nursing.

### 3.1. Experience of pre-registration midwifery degree

All students were asked to respond to a series of Likert-statements about their educational experiences (Fig. 1). Some students worried that their midwifery program would not adequately provide the knowledge ( $n = 86/285$ , 30.2%) or skills ( $n = 101/285$ , 35.4%) required as a newly qualified midwife. While most students ( $n = 169/286$ , 59.1%) enjoyed their clinical placement experience, one fifth ( $n = 60/286$ , 21.0%) disagreed or strongly disagreed that placement had been enjoyable.

Participants were asked about their rationale for selecting their degree (Table 2). Students primarily elected to enrol in their midwifery degree as it was located close to their home ( $n = 136/301$ , 45.2%) and due to the reputation of the university or program ( $n = 119/301$ , 39.5%). Of the 62 participants who indicated other reasons for their

**Table 1**  
Demographic characteristics.

<b>Current enrolment (n = 303/303)</b>	<b>n</b>	<b>%</b>
Not currently enrolled, but recently completed	37	12.2
Currently enrolled	266	87.8
<b>Year of study* (n = 266/266)</b>	<b>n</b>	<b>%</b>
Year 1	97	36.5
Year 2	95	35.7
Year 3	63	23.7
Year 4	7	2.6
Year 5 +	4	1.5
<b>Program (n = 303/303)</b>	<b>n</b>	<b>%</b>
Bachelor of Midwifery	214	70.6
Bachelor of Midwifery / Bachelor of Nursing**	25	8.3
Graduate Diploma of Midwifery	48	15.8
Master of Midwifery***	16	5.3
<b>Enrolment location (n = 299/303)</b>	<b>N</b>	<b>%</b>
ACT	15	5.0
NSW	67	22.4
NT	39	13.0
QLD	71	23.7
SA	26	8.7
TAS	1	0.3
VIC	42	14.0
WA	38	12.7
<b>Enrolment FTE (n = 302/303)</b>	<b>n</b>	<b>%</b>
Full-time	231	76.5
Part-time	71	23.5
<b>Disability or chronic condition (n = 264/303)</b>	<b>n</b>	<b>%</b>
Yes	31	11.7
No	229	86.7
Prefer not to say	4	1.5
<b>Aboriginal or Torres Strait Islander (n = 262/303)</b>	<b>n</b>	<b>%</b>
Aboriginal	10	3.8
Aboriginal and Torres Strait Islander	0	0.0
Torres Strait Islander	0	0.0
Neither	250	95.4
Prefer not to say	2	0.8
<b>Age range (n = 253/303)</b>	<b>n</b>	<b>%</b>
< 25	55	21.7
25–29	46	18.2
30–34	53	20.9
35–39	44	17.4
40–44	25	9.9
45–49	19	7.5
50–54	6	2.4
55 +	4	1.6
Prefer not to say	1	0.4
<b>Gender (n = 264/303)</b>	<b>n</b>	<b>%</b>
Woman	259	98.1
Non-binary	1	0.4
Man	3	1.1
Prefer not to say	1	0.4
<b>Language used most often at home (n = 260/303)</b>	<b>n</b>	<b>%</b>
English	248	95.4
Language other than English	11	4.4
Prefer not to say	1	0.4

\* Participants were only displayed this question if they indicated they were currently enrolled in a midwifery programme. Year of study reflects length of individual student enrolment.

\*\* Includes Bachelor of Midwifery / Bachelor of Nursing and Bachelor of Science (Midwifery) / Bachelor of Science (Nursing).

\*\*\* Includes Master of Midwifery and Master of Midwifery Practice.

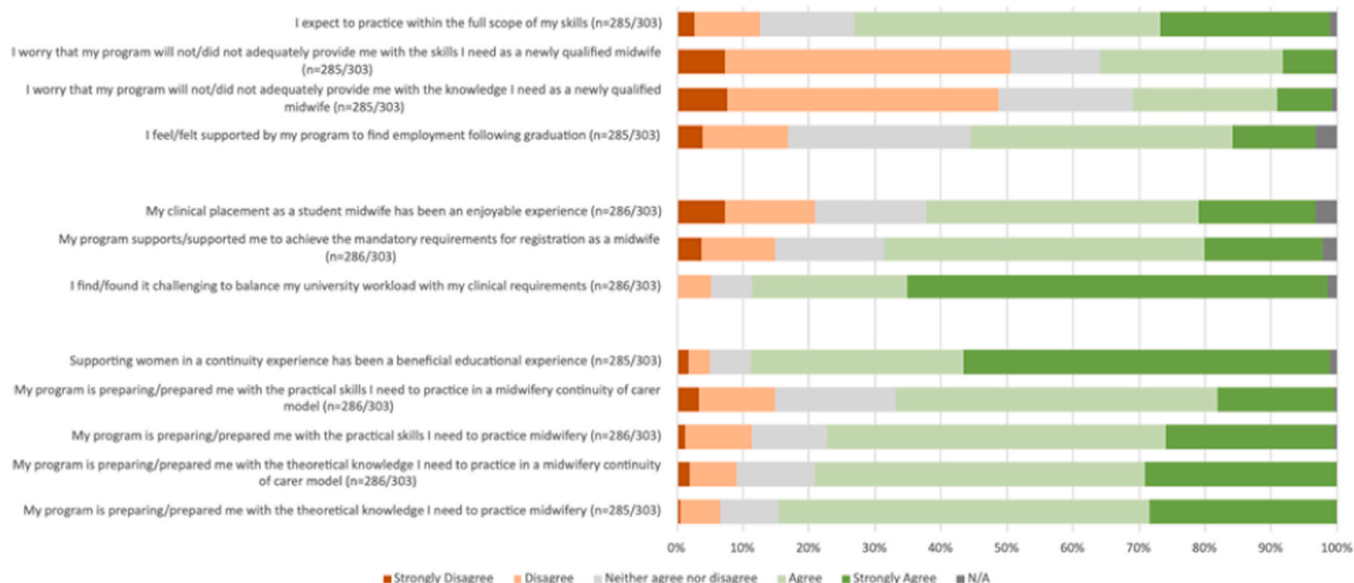


Fig. 1. Experience of midwifery degree.

**Table 2**  
Student experiences of pre-registration midwifery degree.

Reasons for selecting current program* (n = 301)	n	%
This was the program located closest to home	136	45.2
This was the program where I met the entry criteria	61	20.3
I was not aware of other midwifery programs	12	4.0
Because it was a dual degree	19	6.3
Because it was a direct-entry program	98	32.6
This university / midwifery program has a good reputation	119	39.5
This program allowed me to attend home births	17	5.6
This program offered the option of part-time study	53	17.6
Other	62	20.6
Placement location* (n = 284/303)	n	%
Public hospital, standard care model	243	85.6
Public hospital, midwifery group practice model	112	39.4
Private hospital	55	19.4
Private midwifery practice	24	8.5
Private medical practice	0	0.0
Aboriginal health service	8	2.8
Not yet started clinical placement	10	3.5
Other	8	2.8
Placement remuneration (n = 270/303)	n	%
Paid as a registered / enrolled nurse	34	12.6
Paid as an assistant in midwifery	5	1.9
Paid as other	12	4.4
Unpaid placement	219	81.1
Leave of absence (n = 281)	n	%
Took leave from my midwifery program	39	13.9
Considering / considered taking leave from midwifery program	54	19.2
Have not / did not consider taking leave from midwifery program	188	66.9
Withdrawal from program (n = 281)	n	%
Considering / considered withdrawing from midwifery program	161	57.3
Have not / did not consider taking leave from midwifery program	120	42.7

\* Participants were asked to select all answers that applied therefore responses may equal to greater than 100 per cent.

enrolment, most selected their program as it offered remote or online learning (n = 23/62, 37.1 %) or based on the availability of a paid education model, receiving a scholarship or being able to maintain their current employment (n = 20/62, 32.3 %).

Almost one-third chose their degree because it was direct-entry<sup>2</sup> (n = 98/301, 32.6 %). When asked for the reason through an open-ended question, most (n = 72/98, 73.5 %) indicated they chose a direct-entry programme as they did not wish to become a nurse. Nine participants (n = 9/98, 9.2 %) emphasised that nursing and midwifery were distinct professions and questioned the offering of dual degrees. Two respondents (n = 2/98, 2.0 %) believed clinical nursing skills would supplement their midwifery practice. Both were enrolled in a Bachelor of Midwifery and intended to work clinically in a metropolitan area after graduation.

A small number of participants (n = 19/301, 6.3 %) indicated the offering of a dual nursing and midwifery degree as a reason for their choice of enrolment. Reasons included perceived increases in future career pathways (n = 5/18, 27.8 %), including support to work in rural and regional areas (n = 1/18, 5.6 %), acquiring additional skills (n = 2/18, 11.2 %) and an interest in both nursing and midwifery (n = 2/18, 11.2 %).

A third of students (n = 93/281, 33.1 %) had taken or considered taking extended periods of leave or a leave of absence. The primary reason for taking or considering leave was due to caring commitments, particularly pregnancy and childcare (n = 34/93, 36.6 %). Other key reasons included the financial burden associated with completing unremunerated clinical placements (n = 23/93, 24.7 %) and perceived excessive course requirements (n = 21/93, 22.6 %), including high workloads, number clinical placement hours, on-call requirements and inability to take scheduled holidays as part of the degree. Fifteen (n = 15/93, 16.1 %) students explicitly included burnout as a reason.

More than half of students (n = 161/281, 57.3 %) had considered withdrawing from their degree. Reasons included demanding course requirements (n = 54/161, 33.5 %), impact on work-life balance (n = 37/161, 23.0 %) and financial factors (n = 42/161, 26.1 %).

Clinical placements primarily took place in standard care models in public hospital settings (n = 243/284, 85.6 %) followed by midwifery group practice models in public hospitals (n = 112/284, 39.4 %). Public

<sup>2</sup> 'Direct-entry' refers to a pre-registration midwifery programme that leads to student eligibility for registration as a midwife upon programme completion.

hospital maternity care encompasses a range of models of care, from those led by midwives focusing on low-risk women to those led by obstetricians addressing women with obstetric risk factors such as diabetes. By contrast, midwifery group practice models ensure continuity of carer across the whole maternity period by a known primary midwife with secondary backup midwives providing cover and assistance, in collaboration with doctors in the event of identified risk factors (Australian Institute of Health and Welfare, 2024). Most students received no financial support on placements (n = 219/270, 81.1 %).

Students were asked for their preferences about CoCEs as part of their degree (Table 3). Most students (n = 229/280, 81.8 %) supported the inclusion of CoCEs. Students were asked to indicate the number of pregnant people to follow in a CoCE as a continuous variable. The median number was 10 (IQR 7–10, M = 9.85). The preferred number of CoCEs was lower among Graduate Diploma of Midwifery students (Mdn = 9, M = 7.97) than among Master of Midwifery (Mdn = 10, M = 12.54) and Bachelor of Midwifery (Mdn = 10, M = 10.23) students.

### 3.2. Postgraduate employment preferences

Students were asked about their preferences for postgraduate employment. Students were able to select more than one response for questions about preferred postgraduate role and service type (Table 4). Nearly all students (n = 257/278, 92.4 %) indicated a preference for work in a clinical midwifery role. Most students (n = 206/257, 80.2 %) wished to work in midwifery group practice or team midwifery service in a public hospital following graduation.

Fifty-nine (n = 59/278, 21.2 %) students wished to work in a non-clinical role on graduation. Contributing to the development of the midwifery profession through research, policy change and education was the primary reason for interest in non-clinical roles (n = 19/54, 35.2 %). Only four (n = 4/59, 6.8 %) students indicated a desire to work exclusively in non-clinical roles.

Twenty-nine (n = 29/278, 10.4 %) participants expressed interest in working in a clinical nursing role. Most of these respondents (n = 24/29, 82.8 %) held existing employment as a registered nurse. The relation between interest in preferred future nursing roles and degree type were significant ( $X^2(2, N = 278) = 38.88, p = <.001$ ). Students enrolled in a Graduate Diploma of Midwifery (after being a registered nurse) were more likely to express interest in future employment in a clinical nursing role. Of participants who indicated an interest in working clinical as a nurse, six (n = 6) wished to work as a nurse but not as a midwife. Five (n = 5/6, 83.3 %) were enrolled in a Graduate Diploma of Midwifery and one (n = 1/6, 16.7 %) was enrolled in a Master of Midwifery. All were currently employed as a registered nurse. The reasons provided for preferring nursing rather than midwifery included feeling more comfortable in nursing (n = 2/6, 33.4 %), poor culture in midwifery (n = 1/6, 16.7 %), lack of support for Graduate Diploma of Midwifery graduates (n = 1/6, 16.7 %) and uncertainties about whether they would complete their midwifery program (n = 1/6, 16.7 %). Interest in nursing work only was not associated with gender.

**Table 3**  
Continuity of care experiences.

Should students follow pregnant people in CoC experience? (n = 280)	n	%
Yes	229	81.8
Unsure	16	5.7
No	35	12.5
No. of pregnant people to follow in CoC experience* (n = 236)	n	%
More than 10	46	19.5
10	110	46.6
Between 5 – 10	34	14.4
5 or less	46	19.5

**Table 4**  
Postgraduate employment preferences.

Role*	Undergraduate students*** n (%) n = 217/236	Postgraduate students**** n (%) n = 61/64	All responses n (%) n = 278/303
Midwife (clinical role)	207 (85.4)	50 (82.0)	257 (92.4)
Midwife (management role)	26 (12.9)	4 (6.6)	30 (10.8)
Nurse (clinical role)	9 (4.1)	20 (32.8)	29 (10.4)
Research / academic (non-clinical role)	35 (16.1)	7 (11.5)	42 (15.1)
Policy (non-clinical role)	13 (6.0)	2 (3.3)	15 (5.4)
Other	16 (7.4)	3 (5.0)	19 (6.8)
Working hours as a midwife per week**	n = 206/207	n = 50/50	n = 256/257
Less than 15 h	3 (1.5)	2 (4.0)	5 (2.0)
15–25 h	50 (24.3)	11 (22.0)	61 (23.8)
26–35 h	77 (37.4)	25 (50.0)	102 (39.8)
36–38 h per week (full time)	73 (35.4)	11 (22.0)	84 (32.8)
More than 38 h	3 (1.5)	1 (2.0)	4 (1.6)
Role location**	n = 207/207	n = 50/50	n = 257/257
Metropolitan	119 (57.5)	28 (56.0)	147 (57.2)
Regional	38 (18.4)	11 (22.0)	49 (19.1)
Rural	14 (6.8)	7 (14.0)	21 (8.2)
Remote	4 (1.9)	2 (4.0)	6 (2.3)
I do not have a preference	32 (15.5)	2 (4.0)	34 (13.2)
Service type*, **	n = 207/207	n = 50/50	n = 257/257
Public hospital, standard care model	139 (67.1)	32 (64.0)	171 (66.5)
Public hospital, midwifery group practice or team midwifery	162 (78.3)	44 (88.0)	206 (80.2)
Private hospital	35 (16.9)	1 (2.0)	36 (14.0)
Private midwifery practice (owned and operated by midwives)	99 (47.8)	10 (20.0)	109 (42.4)
Private medical practice (owned and operated by doctors)	19 (9.2)	2 (4.0)	21 (8.2)
Aboriginal health service	38 (18.4)	7 (14.0)	45 (17.5)
Other	8 (3.9)	0 (0.0)	8 (3.1)
Scope of practice**	n = 207/207	n = 50/50	n = 257/257
Antenatal	5 (2.4)	0 (0.0)	5 (1.9)
Antenatal and postnatal	13 (6.3)	4 (8.0)	17 (6.6)
Full scope of practice	158 (76.3)	39 (78.0)	197 (76.7)
Labour and birth	21 (10.1)	7 (14.0)	28 (10.9)
Postnatal	7 (3.4)	0 (0.0)	7 (2.7)
Other	3 (1.4)	0 (0.0)	3 (1.2)

\*Participants were asked to select all answers that applied therefore responses may equal to greater than 100 per cent.

\*\* Participants were only shown this question if they indicated interest of working in a clinical midwifery role

\*\*\* Includes Bachelor of Midwifery, Bachelor of Midwifery / Bachelor of Nursing and Bachelor of Science (Midwifery) / Bachelor of Science (Nursing).

\*\*\*\* Includes Graduate Diploma of Midwifery, Master of Midwifery and Master of Midwifery Practice.

Of students who indicated they wished to work clinically as a midwife, most (n = 102/256, 39.8 %) wished to work between 26 and 35 h per week. The primary reason for this preference was maintaining work-life balance (n = 45/97, 46.4 %). Participants felt this workload facilitated balancing family commitments (n = 35/97, 36.1 %), reduced potential burnout (n = 13/97, 13.4 %), balanced financial considerations (n = 7/97, 7.2 %) and enabled participants to pursue endorsement for schedule medicines prescribing (n = 2/97, 2.1 %). Some participants expressed that they would be unable to work more hours than this if undertaking shift work (n = 18/97, 18.6 %).

Working full-time was also of interest to almost one third of participants (n = 84/256, 32.8 %). Common reasons cited for desiring full-time work included financial reasons (n = 49/76, 64.5 %). Notably,

four (n = 4/76, 5.3 %) participants expressed needing to work full-time to alleviate the financial burden accrued during their midwifery education. Clinical experience and skill development (n = 11/76, 14.5 %) and passion for midwifery were also provided as reasons (n = 4/76, 5.3 %).

A small number of participants wanted to work more than full-time (n = 4/256, 1.6 %) or less than 15 h (n = 5/256, 2.0 %) per week. Those wanting to work additional hours primarily suggested doing so due to financial reasons (n = 3/4, 75.0 %) or skill consolidation (n = 2/4, 50.0 %). Those wanting to work fewer hours occupied other roles, such as nursing or academic positions and wished to maintain both (n = 4/5, 80.0 %).

### 3.3. Open-ended responses

All participants were asked to answer open-ended questions at the conclusion of the survey. Each open-ended question received a response rate of at least 81.2 % (n = 246/303). These questions asked students to describe the most rewarding and challenging parts of their degrees, as well as an aspect of the degree that facilitated preparation for future practice well and an area for improvement.

#### 3.3.1. Most rewarding component

Working alongside pregnant women was reported as the most rewarding part of the degree by most students. Students found supporting women as part of CoCE experiences to be the most rewarding:

*"Helping support women to feel empowered and safe while giving birth."* (P206, BMid Year 1, ACT)

*"Supporting women and birth givers, forming meaningful connections and genuinely supporting the person and family's choice, autonomy, self-belief and confidence"* (P84, BMid / BN Year 3, VIC)

*"Seeing the strength of women as they navigate the huge life changes of pregnancy, being there with them as they birth their babies, laughing with them, crying with them, loving their babies with them. Witnessing their strength as they recover from birth and helping them in such a vulnerable time"* (P131, BMid Year 2, NSW)

*"Building relationships with the women and their families throughout this CoCE program."* (P241, BMid Year 1, SA)

Placements, in particular those in midwifery group practice (MGP) were also emphasised as rewarding by a small number of students:

*"...doing my placement at the MGP in [location]. My placement in [location] was very much like the MGP model which I loved."* (P26, BMid Year 2, SA)

Several students also reported satisfaction from completing their degree and becoming registered as a midwife considering associated challenges:

*"I've wanted to be a midwife for most of my life and it still gives me goosebumps and I don't want to go home. I'm still enjoying the role even with all the difficulties."* (P9, GradDipMid Year 1, VIC)

*"Knowing that I was born for this profession."* (P107, BMid Year 1, Not provided)

*"Completing and feeling like I survived against all odds"* (P269, BMid Year 3, QLD)

#### 3.3.2. Most challenging component

Many students reported balancing personal commitments with the demands of the degree to be the most challenging. Typical responses included:

*"This has been the hardest thing I have ever done in my life. Study + placement + CoCEs + part-time work + family commitments... has been a massive challenge."* (P270, MMidPrac Year 2, WA)

*"This degree requires a lot of commitment, sacrifice and passion... When doing this degree it is all encompassing, there's no time for anything else."* (P57, BMid Recent Graduate, QLD)

Some students specifically mentioned the requirements of CoCEs, including being on call, the number of women and the administrative workload, as challenging for maintaining work-life balance:

*"Trying to balance all the time commitments. In particular, CoCEs. Trying to get to their appointments, spending a couple hours there and then missing out on work or clashing with uni classes and constantly falling behind."* (P186, BMid Year 1, QLD)

*"Following 10 continuity of care women on top of full-time university and shift work including night duty... is almost impossible."* (P137, GradDipMid Year 1, VIC)

The distress caused by balancing degree commitments, particularly clinical placements, while trying to meet financial obligations was reported by numerous students:

*"Unpaid placements - the cost of living is so high, and I really struggle to work so I can pay my bills because I have placement so often"* (P179, BMid Year 1, QLD)

*"Balancing unpaid placement... Unless you have support... this degree would be impossible. It is many hours of unpaid placement, often on call. While studying and trying to keep afloat financially."* (P180, BMid Year 2, TAS)

Some midwifery students felt that their education was at odds with the clinical practice they witnessed, with coercion of women into unnecessary medical interventions with a negative impact on the woman's experience of pregnancy and clinical outcomes:

*"And then when we witness obstetric violence and feel like we have no voice and are made to be part of it, that just tops it off."* (P256, BMid Year 5, QLD)

*"Witnessing the copious amount of medical intervention within hospitals and not knowing how to advocate for women when you can see coercion happening."* (P238, BMid/BN Year 2, WA)

The environment of the midwifery degree was challenging for many midwifery students. Many students reported a lack of support from midwives, doctors and midwifery and hospital leadership. This ranged from claims of bullying and harassment to feeling unsupported and pressured to work beyond their scope of practice:

*"Dealing with the culture of being a student on placement. Bullying and harassment by midwives and other health clinicians is awful as a student."* (P90, BMid Year 2, SA)

*"Midwives who 'eat their young'."* (P55, BMid Year 3, NT)

*"The hospital culture has also been difficult, there is pressure on students to fill full staff roles when it is busy to help the paid staff, however we are pushed to work outside our scope of practice and can feel unsupported at times"* (P228, BMid Year 4, NSW)

Midwifery students with prior professional experience as a nurse also faced unique challenges, such as balancing ongoing nursing employment with demands of the degree, the requirements of the degree in relation to degree duration and moving from roles where competence was established to student positions:

*"As a registered nurse having the same amount of requirements as a direct entry participant gives an extra amount of stress as our course is 1 year shorter and the expectation is higher."* (P150, BMid Year 1, QLD)

“The lack of respect for my years of nursing experience, the enormous expectations of the course and work...” (P151, GradDipMid Year 3, NSW)

### 3.4. Well-prepared for future practice

Midwifery students overwhelmingly felt that the applied learning components of their degrees prepared them well for future practice. However, which aspects of applied learning students felt best prepared them, such as placements, CoCE or labs, varied between individual students:

“Excellent practical units led by skilled and understanding lecturers who still practice as midwives...” (P182, BMid Year 1, NSW)

“Clinical support and opportunities. The opportunities to do venepunctures, cannulate and suture perineal tears has been invaluable. The support from placement lecturers have been integral to critically reflecting and improving on my midwifery practice.” (P254, BMid Year 2, QLD)

The importance of woman-centred care and how to advocate for women was also identified as an area for which university degrees prepared students well:

“They have prepared me well to provide women led and women centred midwifery care. To empower women and their families and to provide consensual care in a way that removes midwife/woman hierarchy” (P103, BMid Recent Graduate, QLD)

“My university has engrained in me a woman-centred philosophy of practice that I will hold onto once I enter the workforce in less-than-optimal, not so woman-centred systems.” (P44, BMid Recent Graduate, VIC)

Some students noted that their midwifery degree had inadvertently developed their personal resilience in the context of insufficient support:

“It is very much sink or swim in my current partnership, so it has allowed me to develop resilience and critical thinking skills” (P135, GradDipMid Year 1, WA)

“It has made me resilient and resourceful with deep empathy for myself and therefore others because it taught me to think for myself and rely on myself. Due to its neglect, I have become very good at advocating for my needs which in turn allows me to do the same for families and women. I learned that if I did not fight for my needs, I would not have gotten what I needed...” (P215, BMid Year 3, NT)

One student highlighted the importance of access to supports specific to Aboriginal and Torres Strait Islander students in preparing them for future practice:

“The Indigenous student support... Having an [Indigenous Tutorial Assistance Scheme] tutor to remind me that you don't have to go straight into a hospital to work” (P227, BMid)

### 3.5. Areas for programme improvement

The disconnect between midwifery education and practice emerged as an overwhelming need for improvement. Students felt they were educated in a way that did not prepare them for the realities of their placements or future practice and that this dissonance was often unacknowledged by their programmes:

“Acknowledging and bridging the gap between the gold standard we are taught and the clinical situations most of us will actually work in.” (P38, BMid Year 2, NT)

“Preparing us for the reality of the system we will be working in” (P158, BMid Year 2, VIC)

Many students felt there was too great an emphasis on self-directed learning and that they would have benefitted from increased engagement with educators and fellow students:

“So much of our study was ‘self-directed’. There was so much self-directed learning which could have been face to face or an online lecture.” (P209, GradDipMid Year 1, VIC)

“From second year, self-led learning became the dominant style. I would have enjoyed more in person lectures and engagement for theory and content, that could be discussed as a cohort.” (P104, BMid Year 3, QLD)

Many students identified the absence of financial support, particularly placement poverty, as an area for improvement. Suggested improvements included the introduction of subsidised placements and reimbursement for expenses, as well as acknowledgement of the financial burdens students face:

“Having paid placement would be a MASSIVE game changer to so many. I strongly believe students should get paid as it is hard doing placement. On top of work... The amount of work we do for our course does not equate to what other students do in their courses. We should get paid for all the extra work we do.” (P250, BMid Year 1, NSW)

“I hope that in the future we as student could receive monetary help towards transport. It costs us a bit in terms of driving around in our own cars, using public transport, Uber, flying interstate, etc.” (P126, BMid Year 2, NT)

“The placement team is not very understanding of other life stressors and the effort students have to go to, to attend placement with no pay, families to support, rent to pay” (P194, BMid/BN Year 3, VIC)

Students expressed diverse views about preferred placement location. Some advocated for working in midwifery group practice or with privately practising midwives, whereas others advocated for all placements to be completed in public hospitals in standard care models:

“Ensure that every student is required to do a mix of placements—some tertiary, some low risk, some MGP, some community-based care, some homebirth...” (P265, MMid Recent Graduate, WA)

“More flexibility and options for placement. MGP and private practice placements are few and far between and feel essentially unattainable.” (P102, BMid Year 2, VIC)

“Only public hospital placements. And if they don't have enough spaces, then stop admitting students from areas where they know they can't get public hospital placements.” (P64, BMid Year 3, NT)

## 4. Discussion

As the largest study of Australian midwifery student experiences to date, this research reports on students' education experiences and future employment preferences. Students who completed this survey were primarily women enrolled full-time in a Bachelor of Midwifery program. The number of midwifery students who identified as Aboriginal in this survey (3.8 %) was greater than numbers of registered midwives who identified as Aboriginal and Torres Strait Islander (2.8 %) (Ahpra and National Boards, 2023).

Continuity of midwifery carer (CoMC) is both desired by and beneficial for the health outcomes of women (Homer, 2016; Faktor et al., 2024). The results of this survey demonstrate that CoMC is also desired by midwifery students. The opportunity to develop professional relationships with women, particularly as part of CoCEs, was viewed as a rewarding and beneficial education experience by students in this survey. This is consistent with findings that experience of developing professional relationships with women through CoMC is viewed positively

by midwifery students in Australia (Gray et al., 2013, 2012; Sweet and Glover, 2013). CoCE has been reported to aid in the development of midwifery students' professional agency, (Sweet and Glover, 2013) which aligns with the enhanced autonomy and stronger professional identity reported by midwives working in CoMC models (Barnett et al., 2016; Cummins et al., 2015; Newton et al., 2014). Some research suggests that midwifery students perceive experiences of CoMC through CoCE as less beneficial than clinical placements in models of care offering continuity (Sweet and Glover, 2013). This may reflect the additional benefits midwifery students perceive from developing relationships with and gaining support from midwifery mentors and other healthcare professionals during clinical placements (Sweet and Glover, 2013; Gray et al., 2012).

While current Australian accreditation standards require midwifery students to engage with a minimum of 10 women, (Australian Nursing and Midwifery Accreditation Council, 2021) education providers may choose to implement additional CoCE requirements in their programmes above those required by national accreditation standards. The number of CoCE required by education providers thus ranges from 10 to 30 (Tierney et al., 2018). While most midwifery students supported completion of ten CoCEs, aligning with current minimum accreditation standards, (Australian Nursing and Midwifery Accreditation Council, 2021) one third of midwifery students who responded to the survey believed the CoCE requirement should be reduced. The diversity of these responses likely reflects tensions between positive student experiences and demanding requirements of CoCEs. Midwifery students in this survey did not consider CoCEs to be inherently challenging but rather challenging in the context of competing demands of their degree and personal commitments. Specific challenges include lack of time, (Sweet and Glover, 2013; Gray et al., 2012) difficulties balancing university and personal commitments (Gray et al., 2013) and recruitment (Gray et al., 2013, 2012; Sweet and Glover, 2013). Graduate Diploma of Midwifery students preferred fewer CoCEs than students enrolled in other midwifery programmes, which may reflect the challenges Graduate Diploma students face when completing CoCEs in degrees of shorter durations. Managing demanding course requirements with CoCEs, were identified as a key driver for considering extended leave or programme withdrawal among students in our survey

Student clinical placements in this survey were primarily undertaken in standard care models at public hospitals, followed by placements in MGP. While many students desire placements in a range of settings, some students indicated a preference to complete placements exclusively in standard care models. These preferences likely reflect students' extended responses about the disconnect between midwifery philosophy taught in their programmes and the clinical experience of placement in medical-led models of care. Australian midwifery education programmes educate midwives to adopt woman-centred philosophy and practice CoMC, however midwifery students perceived this training as discordant with their experiences of the care provided in many health service contexts (Sweet and Glover, 2013). Working in clinical settings that conflict with midwifery philosophy can be distressing for midwives, leading to moral distress, burnout and workforce attrition (Foster et al., 2022; Harvie et al., 2019; Geraghty et al., 2019). Further, 41 % of maternity care in Australia is provided through a standard care model in public hospitals, (Australian Institute of Health and Welfare, 2024) thus limiting opportunities for student placements in MGP or other CoMC models.

Many students reported the absence of any financial support leading to placement poverty and cited it as a much-needed area for improvement in their programmes. Placement poverty is well-documented among healthcare students more broadly and is associated with financial disadvantage, stress and reduced health and wellbeing (Wray and McCall, 2007; Bradley and Bourke, 2020; Spiers and Harris, 2015; Usher et al., 2022; Australian Universities Accord Review Panel, 2024). These are likely amplified by demanding course requirements which preclude midwifery students from engaging in regular paid employment external

to their programme. This corresponds with responses in our survey that indicated insufficient financial support as a key reason for considering taking leave or withdrawing from their degree. Under the Commonwealth Prac Payment scheme,<sup>3</sup> eligible midwifery students will be able to access \$319.50 per week during mandatory clinical placements from July 2025 (Australian Government Department of Education, 2024). Continued efforts should be made to increase midwifery students' access to placement funding, equivalent to that provided to medical student peers and reduce the financial burden associated with undertaking mandatory clinical placements.

One fifth of midwifery students reported that their placement experience had not been enjoyable. Beyond considerations of disconnect between midwifery philosophy and placement poverty, students reported experiences of poor placement and workplace culture. This aligns with existing research demonstrating midwifery students experience bullying in Australian clinical settings (Capper et al., 2021a, 2020; Simpson et al., 2023; Capper et al., 2021b). Bullying is associated with feelings of belittlement, being a burden, isolation and of being unsupported (Capper et al., 2021a). Students in our survey additionally reported feeling pressured to work beyond their scope of practice during clinical placements. This may relate to concerns about non-midwifery colleagues misunderstanding the scope of midwifery practice (McCaffery et al., 2022).

Most students desired future employment in public hospital midwifery group practices and employment that supported them to work to their full scope of practice. This suggests increased interest in or awareness of CoMC employment opportunities compared with a prior study of Australian midwifery students that reported that 68 % wished to work in a CoMC model (Evans et al., 2020). Some midwifery students additionally predicted challenges to obtaining roles in CoMC as a new graduate, given requirements by some services for midwives to have several years' experience prior to transitioning to CoMC models (Evans et al., 2020). While recruiting newly qualified midwives into CoMC models has been recognised as a valuable form of workforce succession planning, concerns about the safety of employing new midwives and the organisational culture in CoMC models acted as entry barriers (Cummins et al., 2016). Appropriate orientation to the service and model and the provision of adequate support are important facilitators to the success of newly qualified midwives in CoMC roles (Cummins et al., 2016).

Future employment interest to work in an Aboriginal community-controlled health service was indicated by nearly one fifth of students. National competency standards for midwives in Australia require that midwifery practice be culturally safe (Nursing and Midwifery Board of Australia, 2010) and midwifery education programs are required to include a unit about Aboriginal and Torres Strait Islander health and culture (Australian Nursing and Midwifery Accreditation Council, 2021). Evaluation of unit engagement in Western Australia reported associated increases in student knowledge about Aboriginal health issues and more positive attitudes towards Aboriginal people and communities (Thackrah et al., 2015). However, there is significant variability in the integration of Aboriginal and Torres Strait Islander health and cultural safety content in midwifery education programmes nationally (Thackrah et al., 2015). There has been limited research into the longer-term effects of pre-registration cultural competency education on the ongoing practice of midwifery graduates (Thackrah et al., 2015; Withall et al., 2021).

Unique challenges were reported by students with existing nursing qualifications who were completing pre-registration midwifery programmes, particularly the Graduate Diploma of Midwifery. Graduate Diploma of Midwifery programmes are the primary pathway for

<sup>3</sup> The Commonwealth Prac Payment scheme is available through the Australian government to provide financial support to students to help manage the costs associated with undertaking a mandatory placement as part of a higher education course in teaching, nursing, midwifery or social work.

qualified nurses to achieve subsequent midwifery registration as the degree recognises existing skills, allowing for the degree to be completed in a significantly shorter timeframe (typically 12–18 months). Students in our survey reported additional stress arising from attempts to fulfill accreditation requirements within these shorter degree timeframes. Additionally, these students reported poor workplace culture and lack of recognition of their nursing skills and experience. This is particularly significant in the context of findings from another survey that showed Graduate Diploma of Midwifery students anticipated that positive relationships with colleagues would be important for their future job satisfaction (Hammond et al., 2011).

#### 4.1. Limitations

The NMBA records of student enrolment rely on information sharing from universities and therefore may not be comprehensive. Although efforts were made to ensure all Australian midwifery students were offered the opportunity to participate, it is possible the invitation was not received by all current and graduated students. Availability of the survey to recent graduates also relied on continued access to student emails or social media advertisements. Students who had commenced but had withdrawn from their degree were not included in this study. Project timeline constraints necessitated the survey be conducted between November to December, which is outside of traditional Australian university semesters. It is unclear whether this had an impact on reach. A pilot for validity and reliability of the survey instrument was not undertaken.

#### 5. Conclusion

In the largest survey of midwifery students in Australia to date, students feel well-prepared by their education programmes with the knowledge and technical skills to practice midwifery. Our research demonstrates that CoMC models are desired by and are educationally beneficial for midwifery students. CoCEs were similarly highly valued. Despite this, many midwifery students find balancing course requirements, financial burdens and the dissonance between taught midwifery philosophy and clinical practice as challenges in their degree. A substantial number of students had thus considered taking leave or withdrawing. Additional efforts are needed to ensure course requirements are achievable and that students are adequately supported to meet these.

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#### CRedit authorship contribution statement

**Gray Joanne:** Writing – review & editing, Methodology, Conceptualization. **Homer Caroline:** Writing – review & editing, Methodology, Conceptualization. **Fenwick Jennifer:** Writing – review & editing, Methodology, Conceptualization. **Robinson Mel:** Writing – review & editing, Methodology, Conceptualization. **Warton Chanelle:** Writing – original draft, Methodology. **Bradfield Zoe:** Writing – review & editing, Methodology, Conceptualization. **Baird Kathleen:** Writing – review & editing, Methodology, Conceptualization. **Small Kirsten:** Writing – review & editing, Methodology, Conceptualization.

#### Declaration of Competing Interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: Caroline Homer reports financial support was provided by Nursing and

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#### Appendix A. Supporting information

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