



## Double degree destinations: Nursing or midwifery

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### ABSTRACT

**Background:** Double degrees in nursing and midwifery have evolved in Australia as a proposed solution to possible impending shortages of qualified midwives in the healthcare workforce. The double degree is seen as a more acceptable option in non-metropolitan areas in particular. Concern has been expressed however, about dilution of midwifery philosophy and graduates' opportunities in respect of future clinical practice.

**Aim:** This study aimed to provide a better understanding of motivations and intentions of students who undertake the Bachelor of Nursing Science/Bachelor of Midwifery double degree.

**Methods:** A cross-sectional survey design was employed at four universities that offered double degrees in nursing and midwifery in three states of Australia. Students enrolled in first and fourth year of a double degree and graduates of a double degree were invited to complete an online survey comprised of Likert scales and items requiring free text responses. Quantitative data was analysed using SPSS and thematic analysis was used to analyse the qualitative data.

**Findings:** Participants indicated a clear preference for midwifery as a career with this preference increasing for each cohort at each stage of study.

**Discussion:** Primary reasons for selecting a double degree were perceived increased opportunity for employment and use of nursing skills to enhance midwifery practice in a population with growing co-morbidities. A strong identification with midwifery philosophy and identity was also demonstrated.

**Conclusion:** An understanding of motivations and career intentions of students undertaking double degree studies can inform future program development and workforce planning.

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### Summary of Relevance

#### Problem

Little is known about why students choose double degrees in nursing and midwifery or what their career preferences are.

#### What is already known

Double degrees in nursing and midwifery are seen to be an answer to workforce shortages because of the reduced time frame to achieve both degrees.

### What this paper adds

Reasons for choosing double degrees are predominately about perceived improved employability and enhanced skill sets, although the majority of graduates appear to prefer working as midwives.

### 1. Introduction

Midwifery education and the pathway to a midwifery qualification has undergone change in Australia since the burgeoning recognition of midwifery as a separate profession. Historically in Australia midwifery was subsumed within nursing and the pathway to a midwifery qualification was postgraduate education of already qualified registered nurses (Gray & Smith, 2017; McKenna et al., 2013; Tierney, Sweet, Houston, & Ebert, 2018). Additional pathways now available include undergraduate Bachelor of Midwifery programs, which were first introduced in Australia in 2002 (McLachlan, Newton, Nightingale, Morrow, & Kruger, 2013), and four year undergraduate double degrees in nursing and midwifery

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(McLachlan et al., 2013; Tierney et al., 2018). These pathways were made possible as a result of considerable campaigning, research and effort by committed midwifery leaders and academics over the last few decades (Gray, 2019; Leap, Brodie, & Tracy, 2017). Undergraduate nursing double degrees that combine the study of nursing with other specialities, such as paramedicine, early childhood education or midwifery, were supported and promoted in the early 2000s as a strategy that might address health workforce maldistribution in Australia (Francis et al., 2010). It was proposed that graduates with these diverse skill sets could be produced using “Models that enable articulated, multiple career pathways to provide life-long career opportunities in the health sector” (Australian Health Ministers’ Conference, 2004). These graduates, it was believed, would be better placed and better prepared to work in rural and remote areas (Francis et al., 2010). This paper reports on a study that investigated career preferences of double degree nursing and midwifery students and graduates from four Australian universities.

## 2. Literature review

The historical view in Australia since the early 1900s was of midwifery as a speciality of nursing that was regulated by nursing bodies (Gray, 2019). In the late 1980s and early 1990s, concern was expressed that this control by nursing was inappropriate for midwifery and was hindering development of the profession, including limiting the production of midwives who could work to the full scope of practice as defined by the International Confederation of Midwives (ICM) (Leap et al., 2017). These concerns with scope of practice issues and an ageing midwifery workforce led to government funding of the Australian Midwifery Action Project (Gray & Smith, 2017). What followed was a proposal to develop national standards for regulation and education of midwives, including a proposed three-year Bachelor of Midwifery (Leap et al., 2017). This important work led to the first Bachelor of Midwifery course commencing in 2002. The concerted efforts to provide education and regulatory frameworks to allow midwives to work to full scope of practice also contributed to the development of double degrees in nursing and influenced curriculum design of existing postgraduate midwifery programs (Leap et al., 2017; Sheehy, Smith, Gray, & Homer, 2019). Regardless of the pathway taken for entry to practice as a midwife, all programs are accredited using the same standards and all graduates are prepared for the full scope of midwifery practice (ANMAC, 2014).

Midwifery education and pathways to practice in an international context are variable to the Australian experience. While most curricula, particularly in developed nations, are underpinned by the ICM Global Standards for Midwifery Education (ICM, 2013), entry pathways and course duration vary. In the United States the majority of midwives are educated as nurses first, and complete midwifery education as a postgraduate degree after nursing (Stec & Arbour, 2018), similar to the historical Australian context. Only a small percentage are midwife only and are licensed to practise in a limited number of states. Requirements for a nursing degree prior to midwifery also exist in Iceland (Gottfreðsdóttir & Nieuwenhuijze, 2018). Many other countries, such as Ireland, England, Netherlands, New Zealand and Canada, however, provide three or four year Bachelor of Midwifery degrees as entry to practice as a midwife (Butler, Hutton, & McNiven, 2016; Gilkison, Pairman, McAra-Couper, Kensington, & James, 2016; Gottfreðsdóttir & Nieuwenhuijze, 2018; Luyben et al., 2017). Midwives, prepared to full scope of practice and not having nursing qualifications, means that models of maternity care are developed that support midwifery philosophy and provide woman-centred care.

Several cohorts of double degree students, involving nursing and other professions, have now graduated. Initial research into these students’ experiences, career aspirations and employment outcomes originate from a single university and report on two dual degrees: a Bachelor of Nursing Science/ Bachelor of Early Childhood Education; and a Bachelor of Nursing Science/ Bachelor of Paramedicine (Hickey & Harrison, 2013; Hickey, Harrison, & Sumison, 2013; Hickey, Sumison, & Harrison, 2013). These studies, which looked at graduate destinations as well as students’ intended field of practice, cast doubt on these particular dual degrees as an effective strategy for addressing health workforce maldistribution, particularly in nursing (Hickey, Harrison et al., 2013). Nursing and paramedicine, and nursing and early childhood however, combine professions that are quite discrete and performed in different settings. The potential for securing employment in job opportunities in contexts that combine both roles is therefore limited, meaning graduates must choose one or the other (Hickey, Harrison et al., 2013).

Currently in Australia, there are 14 Bachelor of Midwifery programs, eight double degree nursing/midwifery programs and nine Postgraduate Diploma in Midwifery programs that lead to registration as a midwife (M. Gatling, 2018, pers. comm., 6 December). No research to date has specifically examined double degrees that combine nursing and midwifery, arguably the combination of skill sets that could be applied most logically and easily in a single location in rural and remote hospitals and health services in Australia.

Some midwifery academics and organisations, such as the Australian College of Midwives, have expressed concern that the competing ideologies of nursing science – which is closer to a medical model of care – and midwifery can be confusing for students and counterproductive to their education as effective midwives (Kinnear, 2017; Leap et al., 2017). Despite the introduction of national registration and accreditation standards for midwifery education in Australia in 2010 (Sheehy et al., 2019; Tierney et al., 2018), concern remains that graduates of nursing/midwifery double degree programs are not able to produce midwives who align with current midwifery philosophy and are able to meet the needs of developing continuity of care models in Australia (Tierney et al., 2018).

Proponents of double nursing and midwifery degrees however, argue that there is a need in rural and regional areas of Australia for graduate nurses and midwives who understand both of these ideologies and ways of working and are able to apply them both, in context, to practice in rural and regional areas (Francis et al., 2010; Stewart, Lock, & Bentley, 2012). Anecdotally, students enrolled in nursing/midwifery double degrees appear to be focussed on careers as midwives. Conflicting opinions about the value of double degrees in nursing and midwifery indicate that this is an area that requires further investigation. This study aimed to provide a better understanding of students’ motivations and career intentions in studying the Bachelor of Nursing/Bachelor of Midwifery double degree. In particular, the study sought to determine why students chose to enrol in a double degree, in which area of practice they wanted to work at commencement and end of program, whether this preference changed, and in what area of clinical practice they end up working as graduates.

## 3. Methods

### 3.1. Study design

This study employed a cross-sectional survey design using an online, self-administered questionnaire to ascertain preferences for practice area for students at two stages of the program and for graduates 12–36 months post-completion to ascertain place/field

of employment. Cross-sectional survey design allowed data to be collected concurrently from different cohorts at varying times on the student and graduate trajectory.

### 3.2. Participants

Students enrolled in first and fourth year of nursing and midwifery double degrees at four Australian universities in three states, were invited to participate via an email. Graduates, one to three years post-graduation from each of these four programs were also invited to participate via an email sent from university alumni data. A direct link to the survey was included in the email. The first page of the questionnaire consisted of the participant information sheet and participants were required to click on a consent button to progress into the questionnaire. Questionnaires were anonymous and submission further implied consent.

### 3.3. Instrument

The study used the Career Choice and Location Scale, developed and used by Hickey et al. (Hickey, Harrison et al., 2013) to investigate graduates' outcomes and career pathways of double degree nursing/paramedicine or nursing/early childhood students and graduates. Permission to use the tool was given by the authors. The tool was modified to investigate double degree nursing/midwifery students, rather than paramedicine or early childhood, in the first and fourth year of the program and graduates. The previous study did use the tool for graduates. Slight modifications were made in each questionnaire for each level to incorporate additional questions about change of career preference and place of work for fourth year students and graduates. The modified tools were piloted with a small panel of students who would not be taking part in the study and several nursing and midwifery academics to confirm validity. The questionnaire was available through an online portal using the Qualtrics® platform. Participants were sent an initial invitation to participate in the study and this was followed up with two reminders.

The tools gathered information on demographics, such as age, gender and university attended. Career preferences (nursing, midwifery or both) and preferred clinical areas of practice were assessed using a five-point Likert scale ranging from 'strongly agree' to 'strongly disagree'. Respondents used free-text options to state why they chose a double degree and what appealed to them about the degree. In addition, graduates were asked what profession they thought they would want to work in when enrolling in the program and what they preferred once graduated. They were also asked if they were working in their practice area of choice.

### 3.4. Data analysis

Quantitative data were analysed using SPSS (Statistical Package for the Social Sciences, Version 23.0, IBM Corporation, Armonk, New York, U.S.A.). Frequency tables and descriptive analyses were conducted to summarise the demographic characteristics and graduate destination of the participants. The responses to career preferences were recoded into dichotomous variables for the chi-square analysis among the three year groups. Relationship of factors influencing career decision and year of education were aggregated by counting the number of respondents in the 'strongly agree' and 'agree' categories. The factors were then ranked according to participants' years of course level education. While 183 respondents were included in the analysis, random missing data were observed thus it was not possible to impute or make assumption for all items. Missing values from each field were excluded in the analysis of variance and career decision analysis which eliminated 89

**Table 1**  
Demographic characteristics of participants.

| Characteristics N (%) |                                   |            |
|-----------------------|-----------------------------------|------------|
| Gender                | Male                              | 2 (1.2)    |
|                       | Female                            | 164 (98.8) |
|                       | Year 1                            | 83 (45.4)  |
| Enrolment status      | Year 4                            | 49 (26.8)  |
|                       | Graduates                         | 51 (27.9)  |
|                       | University A in Queensland        | 54 (32.0)  |
| University            | University A in Victoria          | 78 (46.2)  |
|                       | University B in Victoria          | 23 (13.6)  |
|                       | University A in Western Australia | 14 (8.3)   |
| Age                   | Mean (SD)                         | 24.5 (7.0) |

respondents. Missing demographic data was, however, retained in the final analysis.

Qualitative data from free-text responses were analysed using simple thematic analysis. Braun and Clarke's (Braun & Clarke, 2006) six step method of thematic analysis was employed to generate themes. These steps include familiarising with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes and producing a report. A second researcher validated the themes.

## 4. Ethics

This study received ethical approval from the University Human Research Ethics Committee (H6786) prior to commencement of data collection. Email invitations were sent to potential participants from staff not involved in the research team to reduce the perception of coercion. Participation was voluntary and responses were anonymous with no identifying data collected. An information sheet preceded the survey questions and consent was implied by completion of the questionnaire.

## 5. Results

### 5.1. Quantitative results

The survey recruited 183 participants to complete the survey. A total of 83 (45.4%) first year students, 49 (26.8%) fourth year students and 51 (27.9%) graduates completed the relevant questionnaire. Distribution of respondents from each university is outlined in Table 1. As can be seen from Table 1, female students greatly outnumbered male students in the double degree program. This is a reflection of Australian workforce data where 98.6% of midwives are female (Sheehy et al., 2019). The mean age of the participants was 24.5 (SD 7.0) years old and over 65% of them were single. Of the 51 graduates who participated in the survey, 75% were working mostly in a midwifery field since graduating from the program (Table 2). Over half worked mostly in regional or rural Australia.

The top three factors affecting double degree students' career decisions were 'work for passion', 'employment opportunity', and 'potential for career progression'. 'Pay' and 'family responsibility' were two factors considered half as important as the above three factors (Table 3). Student and graduate preferences for career are shown in Table 4. Approximately 60% of graduates were interested in a midwifery only career, as compared to only about 5% for a nursing only career. Close to 80% of participants expressed interest in work in both disciplines while they were studying the double degree. However, after receiving the degree, a significant reduction was found in graduates willing to pursue their careers in both nursing and midwifery (31.9%). Those wishing to pursue a career in only midwifery rose slightly to 66%.

**Table 2**  
Graduate destination.

| Characteristic   | N (%)                     |           |
|--|---------------------------|-----------|
| Since graduating in which geographical area have you worked mostly in? | Metropolitan              | 22 (45.8) |
|  | Regional                  | 24 (50.0) |
|  | Rural                     | 1 (2.1)   |
|  | Other                     | 1 (2.1)   |
| Since graduating I have worked mostly in:                              | Nursing                   | 5 (10.4)  |
|  | Midwifery                 | 36 (75.0) |
|  | Equally in both           | 7 (14.6)  |
|  | Paediatrics               | 1 (9.1)   |
| Since graduating I have worked mostly in nursing in the area of:       | Intensive care            | 1 (9.1)   |
|  | Accident and emergency    | 5 (45.5)  |
|  | Medical/surgical          | 1 (9.1)   |
|  | Other                     | 3 (27.3)  |
|  | Antenatal                 | 0 (0)     |
| Since graduating I have worked mostly in midwifery in the area of:     | Postnatal                 | 13 (30.2) |
|  | Birth Suite               | 15 (34.9) |
|  | Special care nursery/NICU | 2 (4.7)   |
|  | Continuity of care model  | 5 (11.6)  |
|  | Other                     | 8 (18.6)  |

## 5.2. Qualitative results

Free text responses to the questions ‘Why did you choose the nursing and midwifery double degree?’ and ‘What is it about your preferred career/profession that most appeals to you?’ were analysed thematically as described above. Three key themes identified were ‘I want to be a midwife’, ‘Enhancing midwifery knowledge and skills’ and ‘Career opportunities’. Each of these is described below and participant quotes are used to illustrate the themes.

### 5.2.1. I want to be a midwife

As reflected in the quantitative data, at commencement of their program over 52% of participants enrolled in the double degree as a pathway to becoming a midwife and this had increased to 66% by fourth year, with 75% of graduate participants working in midwifery positions. While this was not a longitudinal cohort, it would appear to reflect a changing preference over time. A number answered the question of why they chose the double degree simply with “I want to be a midwife”. A number of participants expressed preference for working as midwives but could see benefits of having a nursing qualification as well, and thought the double degree was a way to fast track acquiring both qualifications. “Because I ultimately want to become a midwife... I like the idea of doing midwifery over

**Table 3**  
Factors influencing career decision making.

| Rank | Year 1                                 | %    | Year 4                                 | %     | Graduates                              | %    |
|------|--|------|--|-------|--|------|
| High | Doing the work I enjoy the most        | 98.6 | Doing the work I enjoy the most        | 100.0 | Doing the work I enjoy the most        | 98.0 |
|      | Employment opportunity                 | 94.2 | Opportunity for career progression     | 93.5  | Employment opportunity                 | 95.4 |
|      | Opportunity for career progression     | 85.5 | Employment opportunity                 | 91.3  | Opportunity for career progression     | 73.0 |
|      | Working conditions                     | 72.5 | Being able to travel and work overseas | 67.4  | Working conditions                     | 66.7 |
|      | Being able to travel and work overseas | 69.6 | Working conditions                     | 67.4  | Being able to travel and work overseas | 39.6 |
|      | Pay                                    | 47.8 | Carer and/or family responsibilities   | 45.6  | Carer and/or family responsibilities   | 35.5 |
| Low  | Carer and/or family responsibilities   | 42.0 | Pay                                    | 34.8  | Pay                                    | 33.3 |

**Table 4**  
Student and graduate preference for career.

|   |          | Year 1 N (%) | Year 4 N (%) | Graduates N (%) | P      |
|---|----------|--------------|--------------|-----------------|--------|
| I am interested in a nursing only career                                    | Agree    | 3 (4.3)      | 2 (4.3)      | 2 (4.3)         | 1.00   |
|   | Disagree | 67 (95.7)    | 44 (95.7)    | 45 (95.7)       |        |
| I am interested in a midwifery only career                                  | Agree    | 34 (47.9)    | 23 (48.9)    | 31 (66.0)       | 0.121  |
|   | Disagree | 37 (52.1)    | 24 (51.1)    | 16 (34.0)       |        |
| I am interested in a career that would allow me to work in both disciplines | Agree    | 53 (72.6)    | 36 (81.8)    | 15 (31.9)       | <0.001 |
|   | Disagree | 20 (27.4)    | 8 (18.2)     | 32 (68.1)       |        |

the four years as opposed to doing it as a post graduate [program]”. (1<sup>st</sup> year student)

A factor that was strongly represented in responses was the acknowledgement of a very strong affiliation and identification with midwifery philosophy such as woman-centred care and partnership. These comments were included in responses to questions about reasons for choosing the double degree or what appealed about it. There were no specific questions about personal philosophy, and yet many respondents identified strongly with midwifery philosophy and identified this as a contributor to why they wanted to be midwives.

“Being able to be with woman. Having the option of continuity of care in the maternity ward from looking after a woman for her antenatal care, being there for her labour and birth, and caring for her postnatally and discharging her and baby home is so special to me, the woman and her family”. (4th year student)

“I am passionate about giving women and their family's options and ensuring they can make a decision about their health that is informed and in partnership with health professionals.” (4th year student)

“I love the holistic and highly woman centred nature of midwifery...”. (Graduate)

A small number identified that a Bachelor of Midwifery program, their preferred pathway, was not available where they lived and relocation was not an option. “. . . I want to become a midwife and the double degree was the only way to study midwifery and not have to move away from home”. (1st year student)

## 5.3. Enhancing midwifery knowledge and skills

The second most common reason given for choosing the double degree was the perception that having nursing skills and knowledge would enhance midwifery skills, even for those who wished to work as midwives. Several reasons were given for this belief, such as increasing comorbidities in the birthing population, a better clinical foundation and as a complement to midwifery skills.

“I always wanted to do Midwifery but thought it was important to also have a nursing background as I planned to work in [a] tertiary hospital and women have increasing comorbidities now”. (Graduate)

“It also has given me skills that the Bachelor of midis do not have”. (Graduate)

*"I chose this degree because I want to be a midwife and have the background knowledge as a nurse because I know this will help develop and enhance my midwifery skills". (1st year student)*

*"I have found that my colleagues comment on how the dual degree has better prepared me for work than the Bachelor of Midwifery graduates they have had". (Graduate)*

#### 5.4. Career opportunities

This theme was the most common across all respondents as a reason for both choosing the double degree and what appealed to them about it. There were a number of reasons given for this. These included: the increased options for employment; increased opportunities for growth; desire to work in a regional or rural location, or high acuity unit such as Neonatal Intensive Care Units; preference to be able to work as both a nurse and a midwife, either concurrently or at various times; and advice that employability is enhanced with both degrees, even if seeking a midwifery position.

*"Partly due to desire for skills that would facilitate rural and remote practice. Partly because employability as a midwife was reportedly increased by the dual option." (Graduate)*

*"I am fascinated with midwifery and supporting women. . . I also feel that having both qualifications you have a higher chance of gaining a job especially in rural areas." (1st year student)*

*"I love the dynamic nature of the degree which will allow us to become more employable and have a wider scope of practice and knowledge, even if we choose to just follow one career path" (1st year student)*

*". . .if there are no jobs available in Midwifery then I can also do nursing as well." (1st year student)*

## 6. Discussion

In September 2017 the Australian Health Practitioner Regulation Agency recognised midwifery as a profession in its own right adding to the impetus for the investigation of pathways to midwifery practice (Kinneer, 2017). While the Bachelor of Midwifery pathway is preferred by the professional midwifery college in Australia (Kinneer, 2017; Leap et al., 2017) there is limited access in many parts of the country. A preference for a broader skill base and perceived increased employability makes the double degree a suitable option for many.

As noted, the Australian College of Midwives and some midwifery academics and leaders have expressed reservations about this mode of entry into the profession, highlighting their concern at the dichotomy between midwifery and nursing philosophies, with the underlying assumption that the biomedical model underpinning nursing, would adversely impact on the woman-centred, philosophical approach of midwifery (Kinneer, 2017; Leap et al., 2017). However, in this study, the quantitative data reflects an increasing attraction to midwifery as a career, with the qualitative data revealing a strong, holistic, woman-centred philosophy expressed by both students and graduates. The findings suggest that participants perceive their nursing skills will enhance their midwifery practice and improve their career options, particularly in the rural and remote setting. Current models of care in rural areas support this need and perception (Francis et al., 2010).

Desire to work in a rural community was given as a common reason in this study for undertaking a double degree, even though the preference was to work predominately as a midwife. Attraction of a rural lifestyle has previously been noted as strong motivator for midwives to relocate to more remote locations, even when it might potentially limit midwifery practice (Yates, Kelly, Lindsay, & Usher, 2013). Shortages of nurses and midwives in rural areas, and attract-

ing them to move to and remain in rural areas, has been previously identified as a key strategy in maintaining rural services (Francis & Mills, 2011). The double degree is a suitable option to assist in this strategy, particularly as nursing and midwifery students coming from rural areas have identified this pathway as the best suited to their occupational preferences (Hickey, Harrison et al., 2013). Midwives without a nursing qualification function well in rural areas, and in fact single qualification midwives are not uncommon in other countries such as Scotland, Ireland and Canada (Butler et al., 2016; Gilkison et al., 2016; Luyben et al., 2017). Current models of maternity care in many parts of Australia however, make employment of single qualification midwives difficult. Ongoing effort is required to support the development of midwifery-led continuity of care models in rural Australia.

As a workforce strategy to increase the skilled workforce in rural and remote areas, this study reveals that in contrast to the previously studied double degrees, where nursing is studied in tandem with paramedicine or early childhood teaching (Hickey & Harrison, 2013; Hickey, Harrison et al., 2013), there is strong evidence that graduates from the nursing and midwifery double degree intend to seek employment in these geographical areas. Although this study identified only one graduate who had taken a rural post, other participants noted difficulties in obtaining graduate positions in rural areas and many gained positions in regional areas. This situation may indicate that in the short term graduates are seeking employment in metropolitan and regional facilities, with their medium to long term goals being to obtain more permanent positions in rural and remote areas. There is some support for this argument under the theme 'career opportunities', where participants indicated their choice of the double degree being related to planning careers in regional and rural areas, stating that the double qualification would enhance their employability. This perception could be seen as adding some credence to Kinneer's (Kinneer, 2017) fear of the double degree being merely a business proposition rather than an educational one, however the qualitative data also indicates that the double degree is meeting the need to produce 'knowledgeable and skillful practitioners' (Kinneer, 2017).

The increasing evidence of comorbidities in birthing women is a recognised issue facing maternity care providers (James, Endacott, & Stenhouse, 2017) and it would seem that knowledge of this situation contributes to some students' desires to support their midwifery qualification with nursing. In addition, within the limited number of participants who indicated a career choice in nursing, or those wishing to work in both fields, there was a belief that midwifery skills were seen to enhance their employability in emergency and neonatal intensive care nursing positions. Furthermore, the frequent identification of enhanced skills may be linked to the perception of increased career opportunities evident in both the quantitative and qualitative data. In contrast to other double degree graduates, as previously identified (Hickey & Harrison, 2013), the participants of this study indicated a pursuit of careers in healthcare in rural areas and the perceived increase in their employability in diverse environments.

## 7. Limitations and recommendations

All survey research has inherent limitations such as reliance on self-reporting. Future studies may consider exploring the perception of broader stakeholders as to the actual and potential value of double degrees in nursing and midwifery. The relatively small number of participants in this study may also be considered a limitation. It is, however, reflective of the select number of double degree nursing/midwifery programs available in Australia, and the small cohort sizes that such specialist programs accommodate. A

total of 56% of respondents were from Victorian universities and this skew in the data may be considered a limitation, particularly in respect of the influence of importance or desire for rural practice. While there are rural and regional areas in Victoria, the distances and likelihood of more remote places of employment are reduced compared with larger states of Queensland and Western Australia.

For a small number of participants, a desire to secure a midwifery qualification without having to relocate was a motivator for undertaking a double degree. Further investigation of this issue may be warranted to explore why these students do not consider externally delivered direct entry degrees or post-graduate pathways a viable option. It is clear that double degrees instil a strong sense of midwifery identity, in spite of the dual qualification these provide. Future research is needed to explore how a similar outcome in respect of a professional identity can be instilled in graduates of nursing programs. Finally, research that examines the career path of graduates in the years after completion may be valuable in understanding workforce trends of double degree qualified nurses and midwives.

## 8. Conclusion

The introduction of double degrees in nursing and midwifery has provided an alternate pathway to a midwifery qualification in Australia, after the traditional post-graduate diploma route and the more recent Bachelor of Midwifery. Despite concerns in some circles about the value of double degrees in nursing and midwifery, this study indicates that there is strong demand for this option. It is clear that participants in this research primarily sought opportunities to work as a midwife while retaining the option to practice as a nurse where career options may be broadened. The strongly developed sense of midwifery identity was clearly valued by the participants in this study. All communities served by graduates of double degree programs can only benefit from such a positive professional philosophy.

## Ethical statement

This study involved human participants and received ethical approval as a scientific research study from the James Cook University Human Research Ethics Committee (H6786) prior to commencement of data collection.

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None.

## Conflict of interest

None.

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