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TITLE PAGE

TITLE: Midwifery Graduate Attributes: A model for curriculum development and education.

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STRUCTURED ABSTRACT AND KEYWORDS

ABSTRACT

Background: The basis for the development of the model was to provide important information for students, the public and future employers of the personal, professional and intellectual attributes of a graduate of midwifery. In 2012, the midwifery team undertook the development of graduate attributes and embedded them into the curriculum.

Description of the model: The seven graduate attributes align well with the Australian National Competency Standards for the Midwife and the International Definition of a Midwife. Each attribute is mapped to the course intended learning outcomes, subject level objectives and assessment tasks. The overall intent of this model is to enable students to engage in learning with identified outcomes so they can demonstrate what they know (assessment) and what they can do (midwifery practice). The model is a framework for curriculum development and midwifery education.

How well does the model work: The graduate attributes as a model for midwifery education focuses on shaping our future midwifery workforce as competent professionals who practice woman centred care with intelligent kindness in a collaborative manner in a changing and diverse health system. Specific examples of how each graduate attribute meets the needs of women and develops skills and competencies of the midwife is discussed. The benefits of embedding the graduate attributes into the curriculum are described along with the framework for longevity.

Is the model described sustainable: Despite extensive consultation with consumers and our industry partners there may be issues with translating how the attributes will be demonstrated and assessed in the clinical practice area. Strategies to overcome these threats are provided.

Conclusion: we have learnt the value of a collaborative process in developing a robust framework for curricular development. The integration of the graduate attributes into assessment criteria ensures students understand their learning goals and the expectations of a midwifery graduate in accordance with national and international standards and definitions for a midwife

Key words

Midwifery

Education

Australia

Curriculum

Background

Models of midwifery education need to evolve to meet the changing needs of the profession. This requires a constant process of review and re-evaluation of curricula. Programs that lead to midwifery registration must not only meet national and international standards, but many also commit to producing graduates who meet course specific graduate attributes. These attributes differ between models of education and courses and are pivotal in providing clear direction for the development of higher level abilities in graduates. Visionary graduate attributes provide the opportunity to prepare graduates to function and flourish in a fast changing social and professional environment and to prepare them for a future that is largely unknown (Bowden, Hart, King, Trigwell, & Watts, 2000).

The University of Technology Sydney (UTS) has embraced the concept of graduate attributes and all graduates are expected to demonstrate capability in both University and course-specific attributes. The UTS model of learning provides a framework for practice oriented learning that aligns graduate attributes and curriculum design. The model is focussed on three distinctive areas, *practice oriented* education situated in a *global workplace* through learning that is *research inspired and integrated* (UTS 2017). Each course offered by UTS has embedded graduate attributes that reflect the overall aim of the course. These provide important information for students, the public and future employers as to what personal, professional and intellectual attributes to expect from a graduate of that course.

Commencing in 2012, the midwifery team undertook a project to develop visionary attributes for midwifery graduates and this paper describes and discusses the development and implementation process of the graduate attributes model.

Development and implementation of Graduate Attributes for Midwifery Education

The initial phase of the midwifery graduate attributes development focussed on an in-depth review of the National Competency Standards for the Midwife (Nursing and Midwifery Board of Australia, 2006), the International Definition of the Midwife and Midwifery Education Standards (International Confederation of Midwives, 2011) (ICM) and current curricula documents. As a result of this initial review, widely recognised central tenets of midwifery such as woman centred care, competence, collaboration and professionalism were clearly identified as vital attributes.

To further develop these and additional relevant attributes, a process of iterative consultation with industry partners was undertaken. Midwifery at UTS values a reciprocal relationship with 23 partner hospitals in both private and public health sectors and also with consumers of maternity care. These groups were invited to several meetings and day forums to consult and discuss the attributes of a midwife. Following this extensive consultation the team was able to develop and refine what have become the midwifery graduate attributes (see Figure 1.) This collaborative process was a key step in the development of the graduate attributes model as it ensured that we aligned with industry expectations and were informed by women's voices. In recognition of the Faculty's commitment to Indigenous cultural respect, a distinct attribute was developed using a parallel process and this was embedded as a graduate attribute to inform every discipline in the Faculty (Virdun et al. 2013).

Insert figure 1

The development of the graduate attributes model was informed by the work of Biggs and Tang (2011) who argue that learning should be constructed around intended outcomes and teaching and assessment then aligned to determine what the learner is required to do to achieve these outcomes (Biggs & Tang, 2011). The graduate attributes model identified the attributes (outcomes) for midwifery students and the 'course intended learning outcomes' and subject learning objectives were then developed to align with the attributes (see Figure 2). The overall intent of this model is to enable students to engage in learning with identified outcomes so they can demonstrate what they know (assessment) (see Figure 3) and what they can do (midwifery practice).

Insert figure 2

As with the introduction of any new framework or model an implementation plan was required to ensure all stakeholders in the program had a clear idea of the expectations of supporting the students to develop the identified attributes.

The implementation plan involved a formal launch. UTS academics visited the partnering hospitals and provided in-service education to the midwives and distribution of flyers of the attributes, icons and course intended learning outcomes. The attributes, their icons and course intended learning outcomes were included in the subject outlines and displayed where students would be able to refer to them (ie clinical laboratories). A short audio-visual resource was also made available to assist with communicating the attributes and the reasons for the attributes. This multi-pronged approach allowed for wide dissemination of the attributes and ensured a high level of awareness among key stakeholders.

Insert Figure 3

How well does the model work?

The graduate attributes as a model for midwifery education focuses on shaping our future midwifery workforce as competent professionals. For example, our model of embedding the 'Indigenous Cultural Respect' attribute aims to produce graduates that, *'Demonstrate professional cultural competency which contributes to the health and wellbeing of Indigenous Australians, inclusive of physical, social, emotional and spiritual wellness'* (UTS 2016, p.54). The subject objectives include the ability to discuss historical influences upon the health and well-being of Aboriginal and Torres Strait Islander peoples, to describe links between colonisation and Indigenous maternal and infant health outcomes, and to recognise the specific needs of Australian Aboriginal and Torres Strait Islander women.

Woman centred care is assessed across all teaching sessions in subjects and clinical practice. The marking criteria for the assessment requires evidence of a woman centred approach, the use of woman centred language; provision of the correct information supported by the latest available research. As part of all the clinical practice subjects, students undertake Continuity of Care Experiences (Australian Nursing and Midwifery Accreditation Council, 2014). This is where students initiate and sustain a professional relationship with a woman throughout her pregnancy, birth and into the early parenting period (J. Gray, Taylor, & Newton, 2016; Tierney, Sweet, Houston, & Ebert, 2017)). These experiences further develop students' understanding in regard to woman centred care (and other attributes).

Midwifery graduates need to be assessed as competent against the NMBA registration requirements (Nursing and Midwifery board of Australia, 2017) and our model aligns well with the competency standards, in particular, the attribute titled 'Professional Competence'. This attribute is assessed through theoretical subjects such as anatomy and physiology as well as through the clinical practice subjects where students are assessed in practice on their midwifery skills and knowledge. The UTS graduate attribute model ensures midwifery students are exposed to compassion and kindness through naming these attributes as important qualities of a midwife.

Women in Australia are diverse with a quarter of women giving birth in Australia from non-English speaking countries (Australian Institute of Health and Welfare, 2017) instigating the development of the attribute named 'Diversity'

We understand that midwives do not work in isolation and have therefore ensured there is alignment with the attributes of 'Collaboration' and 'Professional Engagement' to build a strong future midwifery workforce for Australian women. During their education students are exposed to competing demands of university, clinical and family commitments plus the demands of paid employment (Gray, Leap, Sheehy, & Homer, 2012). We want to support the students to become resilient new graduate midwives. We have embedded many activities and assessments that meet the requirements of the 'Resilient' graduate attribute (Cummins, Catling, Hogan, & Homer, 2014) to ensure our model meets the needs of the women and a future midwifery workforce that is sustainable.

Sustaining the model – opportunities, threats and challenges

The process of embedding the graduate attributes in the curriculum and mapping to assessment items promotes sustainability of the model. Involving industry partners and key stakeholders in initial and continued development of the attributes helps promote 'buy-in'. In addition, linking the attributes to university wide attributes also decreases the likelihood of divergent directions in graduate capabilities.

Despite best efforts with 'buy-in' from industry partners, there may be issues with translating how the attributes will be demonstrated and assessed in the clinical practice area. Staff may not have had sufficient information and support in regard to assessment expectations. Strategies to overcome this include providing clear expectations of assessable attributes and working with clinical staff in developing relevant and usable assessment tools (AMSAT 2017; Sweet et al. 2017).

Conclusion

By closely reviewing midwifery standards and definitions along with existing curricula documents, we were able to develop a robust framework for curricular development. The collaborative process that followed assisted us to develop graduate attributes that closely reflect our professional, philosophical and educational commitment to high quality midwifery graduates. By considering the attributes when developing assessment criteria, this ensured meaningful integration of the attributes into our teaching and learning goals across all subject areas. As the graduate attributes closely reflect cultural settings and influences, this model is perfectly placed to be developed in other countries. Close collaboration with key stakeholders and professional partners is integral in maintaining the link between the clinical and educational disciplines.

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Midwifery Graduate Attributes Faculty of Health	
	Woman centred care Practice woman centred care
	Professional Competence Are professionally competent midwives who provide safe and effective midwifery care using intelligent kindness
	Collaboration Work collaboratively in order to provide excellence in maternity care
	Resilience Are resilient, emotionally competent midwives who foster human flourishing
	Diversity Are socially responsible citizens who value the diversity of people
	Professional engagement Are professionally engaged critical thinkers who take a lively and questioning approach and embrace lifelong learning
	Indigenous cultural competency Demonstrate professional cultural competency which contributes to the health and wellbeing of Indigenous Australians inclusive of physical, social, emotional and spiritual wellness

Figure 1 UTS Midwifery Graduate Attributes



Figure 2: Integration of the graduate attributes into the teaching and learning framework

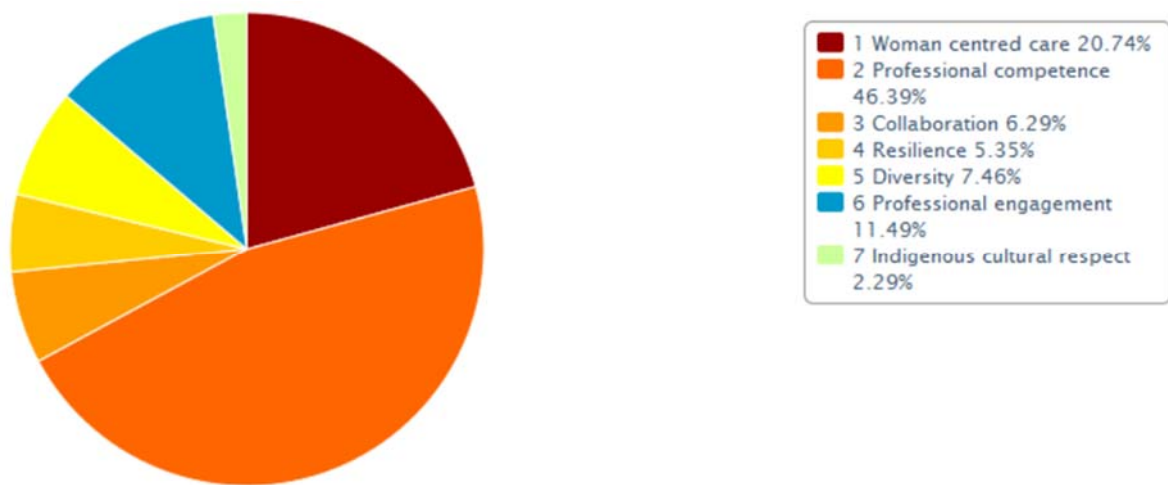


Figure 3 Alignment of Graduate Attributes with assessment items