

NEW ZEALAND RESEARCH

Online postgraduate midwifery education increases knowledge integration into practice: Insights from a survey of Otago Polytechnic's postgraduate midwifery students

Suzanne Miller^{A,B} PhD (Cand.), GCTLT, MMid, RM, RCpN • Christine Griffiths^B PhD (Cand.), GCTLT, MA(Hons), DipSocSci, RM, RGON

^A Corresponding
Author: suzanne.miller@op.ac.nz

^B Otago Polytechnic
School of Midwifery,
Dunedin

ABSTRACT

Background: The Midwifery Council of New Zealand requires that registered midwives are engaged in education as one aspect of demonstrating ongoing competence. Barriers to engagement include geographical isolation, inability of workplaces to release midwives, potential for the post-registration student to be unavailable to her Lead Maternity Care clients, and financial constraints associated with travel to where the study is offered. In New Zealand, the Otago Polytechnic postgraduate midwifery programme offers a range of clinically focussed and theoretical papers that are delivered at distance in a blended model, combining online learning with synchronous and asynchronous online discussion opportunities. This model enables midwives to up-skill and build “communities of practice” regardless of their physical location, with no resultant loss of availability to their community or workplace.

Aim: This research aimed to explore midwives' perceptions of how their engagement in online postgraduate midwifery education had influenced their practice, potentially benefiting childbearing women in their care.

Method: Following ethical approval, an online survey was sent to all midwives who were enrolled in postgraduate midwifery courses at Otago Polytechnic in the period 2012 to 2013. Data were collected in April 2014, from a survey that used a combination of Likert scales, yes/no responses, and provision for qualitative comments. Data were analysed using descriptive statistics and thematic analysis.

Results: Fifty-five out of 117 (47%) surveys were returned. Midwife respondents practised across a range of settings from urban to remote rural locations, and midwifery care was provided at home and at primary, secondary and tertiary birth facilities. Respondents felt that participation in online postgraduate midwifery education had improved their knowledge base and their ability to practise in an evidence-informed way, and they felt connected to a community of practice in a virtual sense, gaining the benefits of support and encouragement from fellow learners and lecturers. They believed that the care they provided to women was enhanced because they had practice currency and could apply their knowledge to clinical situations with increased confidence.

Conclusion: For these midwives, engagement in online postgraduate midwifery education informed their midwifery practice, and therefore the care that women received. Online postgraduate midwifery education enabled these midwives through its accessibility.

Keywords: midwifery, postgraduate, online education, e-learning, continuing education, midwifery care

INTRODUCTION

Midwives in Aotearoa/New Zealand are required by the Midwifery Council of New Zealand (MCNZ) to engage in ongoing elective education, as one aspect of its Recertification Programme (MCNZ, n.d.). Engagement in education contributes to midwives' competence for practice, and a number of education providers offer postgraduate learning opportunities. Barriers to engagement have been identified, including cost, location, and rationing of education (Calvert, 2015). Traditional face-to-face classroom learning is said to be limiting midwives' ability to actively engage in education and is seen as “a slow way to translate knowledge into practice” (Calvert, 2015, p.198). Online education offers a promising way forward, and this research from Otago Polytechnic's (OP's) online postgraduate midwifery programme

can contribute to our understanding of the overall landscape of postgraduate education in Aotearoa/New Zealand.

BACKGROUND

Postgraduate midwifery education in Aotearoa/New Zealand has evolved over the last ten years to include a range of modalities. Whilst some education is still provided via face-to-face study days, increasingly the focus has turned to online provision of educational opportunities. The OP School of Midwifery offers a programme of online education to Master's level, with courses ranging from seven-week clinically focussed topics to longer courses designed to prepare students for Master's research projects. Most courses comprise weekly modules of theoretical content which include links to research articles, quizzes, external websites and other

learning resources. These are supported by “live” virtual classroom discussions and asynchronous forum discussions. Live sessions enable midwives to share their practice wisdom, hear from guest speakers with expertise in the topic and discuss what occurs in their local areas, thus building online communities of practice. Assessments may include essays, presentations, quizzes, production of resources for women and forum postings.

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Clear benefits for institutions offering online education have been identified, in terms of cost-effectiveness, sustainability, rapid and easy updating of course content and learning compression (Derntl & Motschnig-Pitrik, 2005; Epic, n.d.; Nichols, 2004). A number of benefits to learners who are health professionals have also been identified. These include flexibility with self-directed learning (Andrew, Maslin-Prothero, & Ewens, 2015; Kale & Richardson, 2006; McVeigh, 2009), access for remotely located learners (Carroll, Booth, Papaioannou, Sutton, & Wong, 2009; Morrow, Phillips, & Bethune, 2007), increased knowledge and understanding, and the evolution of “communities of practice” (Bromley, 2010; Cassidy, 2011; Lewis & Price, 2007; Owens, Hardcastle, & Richardson, 2009; Pullen, 2006). But, to date, there has been little exploration of whether there could be benefits beyond the learner, to recipients of the care provided by those engaged in these educational opportunities. Whilst several studies involving nurses and doctors have described enhanced clinical decision-making, knowledge currency, increased understanding and use of research, and positive impacts on practice (Atack, 2003; Lockyer, Moule, & McGuigan, 2007; Moore et al., 2012; Smyth, Houghton, Cooney, & Casey, 2012; Wong & Abbruzzese, 2011), the absence of studies that evaluate the impact of post-registration education on recipients of care has been noted in a systematic review (Gijbels, O’Connell, Dalton-O’Connor, & O’Donovan, 2010). Sinclair, Kable, Levett-Jones, and Booth’s (2016) systematic review, of the effectiveness of e-learning on health professionals’ behaviour and patient outcomes, also identified no studies that examined the effect of online education on recipients of care. Because their review centred only on asynchronous educational offerings that had been examined by randomised or quasi-randomised study designs that measured effectiveness using validated tools, it was limited to seven studies. We have been unable to identify any studies that specifically relate distance midwifery education to possible benefits to women that might accrue. It would be challenging for women themselves to identify whether their midwife’s engagement in online education had resulted in them receiving “different” care, so this research has examined the midwives’ own perceptions of how the online postgraduate midwifery education offered by OP has shaped their practice, and invited them to consider how this might have benefitted their clients in turn.

METHOD

An online survey was designed to capture both the demographic characteristics of OP’s postgraduate midwifery students and their

experiences of online study. The survey, although based on one that had previously been developed and used in the OP undergraduate programme, was adapted for both the postgraduate programme and the specific research question relating to midwives’ perception of how their practice and women’s care were influenced by online study. Midwives were asked a range of questions about specific learning modes within the courses (for example, use of virtual classrooms and online discussion fora) and whether—and how—the courses increased their knowledge, confidence, and cultural competence. Some of these outcomes will be reported in another publication, but the primary focus for this article is on midwives’ perceptions of how their education influenced their practice and women’s care. The survey was distributed for feedback to the teaching team in the postgraduate programme prior to being included (with no amendments) in the research proposal and the ethics application. The ethics application was approved by the OP Research Ethics Committee in April 2014 (OPREC Ethics #578), following consultation on cultural aspects of the proposal with the OP Kaitohutohu Office. Because both researchers were involved in a teaching capacity in the postgraduate programme, the survey was forwarded by the OP Organisational Research Officer to all students who had been enrolled in any OP postgraduate midwifery courses during 2012 and 2013 (n=117).

An information page at the start of the survey outlined the nature and purpose of the study, giving contact details for the researchers so that any questions could be asked prior to participation. Potential participants were assured of their anonymity and that participation was entirely voluntary. Completion and submission of the online survey constituted consent for participation and respondents were able to withdraw their responses until the closure of the survey by emailing the Organisational Research Officer. Completed surveys were returned online to the Research Officer, and only aggregated data were provided to the researchers for analysis, to protect the anonymity of respondents, thus minimising a potential source of bias. All data were presented to the researchers on an Excel spreadsheet with no identifiable features included; each respondent had only the spreadsheet number alongside their response. Quotes presented reflect this number (e.g. R7). Even where respondents may have included a comment that identified the course they completed, it was not possible for individual midwives to be identified.

Quantitative data were analysed descriptively using counts, frequencies, measures of central tendency (means) and dispersal (ranges). No other statistical tests were applied. Qualitative data were analysed using both Braun and Clarke’s 2006 and 2013 models (Braun & Clarke, 2006; Clarke & Braun, 2013). Initial codes were produced by one researcher (CG) to represent what appeared of interest about the phenomenon under study. Some initial codes went on to form two main themes, while others formed sub-themes reflecting the experiences, meanings, and reality of the participants, in response to the questions asked. For example, the initial codes “increased knowledge” and “practitioner confidence” were eventually taken up to form part of the theme “increased knowledge enabling confident discussion”. Other initial codes were discarded. The identified themes were then reviewed by both researchers and refined to ensure they accurately reflected participant meanings in the qualitative data. An analysis was then written about each of the identified themes, describing how they were related to each other. Conclusions were drawn via discussion to consensus between the researchers. This paper presents the following themes: Increased knowledge enabling confident discussion, Integration of knowledge into practice, Maintaining currency, and Benefits for women receiving care.

RESULTS

The response rate for the survey was 47% (n=55). This is higher than response rates typically reached for online surveys, which average at around 33% (Nulty, 2008; Watt, Simpson, McKillop, & Nunn, 2002) and the sample was considered representative.

Who are we and who are our learners?

Despite OP being physically located in Dunedin, during the period relevant to the survey the 10 lecturers in our School of Midwifery postgraduate programme were variously located in Dunedin, Motueka, Wellington and Taranaki. The survey respondents were located right across Aotearoa/New Zealand, and also in the Pacific Islands, North America and Europe. They were all registered midwives, all women, with 45% in full-time and 42% in part-time midwifery practice (12% not stated; all figures rounded). The respondents' average age was 46 years, and average length of midwifery practice was 18 years. These midwives worked across a range of practice types, including self-employed practice, employed practice, caseloading employed practice, management, education and research. Yet others were taking the time to study during periods of maternity leave (Figure 1).

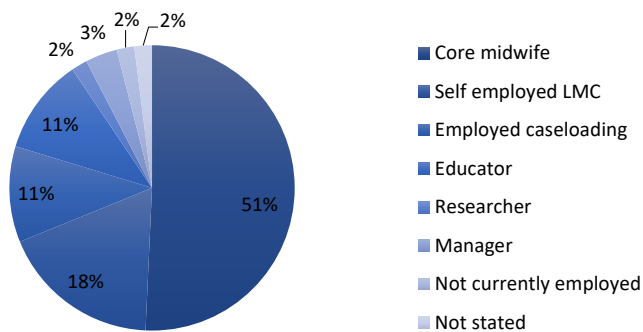


Figure 1. Main midwifery role during period of study

Sixty-two percent of our respondents were first registered as midwives in Aotearoa/New Zealand, with a further 25% reporting first registration in the United Kingdom, 5% in Australia, and the remaining 8% "other" or "not stated". The midwives practised in a range of settings. Of those who reported one main work setting, 75% reported this as urban, and the remaining 25% reported it as being semi-rural, rural and remote rural. Of midwives who worked across multiple work settings, 45% worked across all areas, indicating the wide geographical spread of practice by individual midwives.

Each year, eight practice-focussed and two theory-focussed courses are offered in addition to the Master's thesis option. In 2012 and 2013 there were 53 and 67 enrolments in practice-focussed courses respectively, and 8 and 9 enrolments in theory-focussed courses respectively. The survey did not ask midwives to nominate which course(s) they had completed but 60% (31/52) of respondents were enrolled in more than one course. Thus, most midwives were engaged in courses which related quite directly to their midwifery practice.

Increased knowledge enabling confident discussion

"Increased knowledge enabling confident discussion" was the first of two strong themes which emerged from analysis of the data about how online postgraduate education influenced the participants' midwifery practice. In response to the statement "My knowledge of the subject area has improved as a result of doing the course(s)", which was accompanied by a five-point Likert

scale ranging from 1 (greatly improved knowledge) to 5 (learned nothing new), the majority (49/53) of midwives commented that their knowledge of the subject area had increased.

I have much better subject knowledge now. (R8)

Definitely increased knowledge and practical info[rmation] to use in practice. (R19)

I consider that I was relatively up to date...however I did gain some new knowledge and it gave me a chance to review the current evidence in relation to... (R21)

Also mentioned was the frustration participants experienced in practice when best practice was not applied in situations they were either involved in, or witnessed.

I thoroughly enjoyed the learning experience. Ironically, some frustration is felt knowing where/when best practice is not applied. (R31)

In response to the statement "I feel more confident as a midwifery practitioner as a result of doing the course(s)" where respondents rated on a Likert Scale "much more confident" (1) to "no change in confidence" (5), most respondents (47/53) felt that their confidence was increased as a result of their postgraduate study, and that they could confidently state the latest research on a topic, which they felt added to their credibility as practitioners. This related to their interactions with both midwifery and obstetric colleagues. Respondents also described feeling more confident with locating evidence to support their practice and with increased skills for critiquing this evidence.

As a result of increased knowledge about the topic I feel more confident in my understanding of the physiology related to the topic, and therefore feel more confident in interpreting results and engaging with other health professionals when consulting. (R21)

I feel more confident in my knowledge base, and as a result, feel more confident when consulting with other health professionals. (R22)

...increased knowledge and confidence to read research and apply it and talk about it to colleagues. (R27)

It has helped me to remain up to date with current research and challenged me to keep my practice evidence based. I have also developed stronger skills in being able to critically examine research, and assess its validity to current practice trends. (R47)

Integration of knowledge into practice

The second theme which emerged from the data was "integration of knowledge into practice". Midwives were asked to comment on the effect that postgraduate education had had on their midwifery practice, and their perception of how their education might benefit women receiving their midwifery care.

Respondents felt that, as their knowledge had increased as a result of the education they had received their confidence in applying their new knowledge to practice had improved also.

My practice has changed so much over this time... (R18)

[I am] motivated to make a difference. I use evidence based care in my practice all the time, and take great pains to differentiate between personal opinion, and evidence based care. (R42)

I feel I can offer some suggestions backed by research and knowledge [from] my recent studies. (R32)

While studying... SUDI, I was interested in the cultural aspects around bed-sharing and have changed the way I present information to include culture and safe sleep practices. (R50)

Respondents were asked if participating in online postgraduate education had influenced their practice as a midwife. Some (3/48) felt the course content supported their current practice therefore giving no reason to change it.

It has given me deeper knowledge but not changed my practice. (R57)

However the majority (41/48) of respondents felt they had gained information that had a direct benefit to their midwifery practice.

Absolutely. I have developed my research and critique skills and improved my knowledge of specific areas of practice. (R7)

Cohesive integration of pathophysiology into day to day practice. (R10)

I feel it has made me be more diligent in i.e. weight monitoring and management (maternal obesity paper). (R11)

Increased my confidence within my own practice. (R12)

It certainly made me consider research in all my information given to women and how important being up to date with the current research was. (R16)

Maintaining currency

On completion of the postgraduate course they had undertaken, 73% of respondents felt motivated to continue on with postgraduate study in order to learn even more.

I think once your interest is piqued in a subject you will be stimulated to maintain your knowledge. (R21)

The...course has inspired me to continue with a Masters [sic] in Midwifery [degree] specifically looking at this area and maybe do a research project on this. (R19)

Midwives enjoyed having ready access to sources of current information while enrolled in a course.

I am motivated to ensure my knowledge is contemporaneous but it is throughout the period of study that most time is spent researching a subject. This is made so much easier by having access to many sources of the most relevant information. (R31)

Respondents were asked whether the course had provided them with opportunities to reflect on their personal beliefs and how these may influence the care they provided to women. Of the 50 respondents who answered this question, 41 agreed their course resulted in reflection on their own values and beliefs.

...discussion with other midwives made me examine my preconceptions about obesity, its causes and impacts on women and their families. (R41)

Yes, encouraged personal reflection and application all along. (R27)

Yes, and how my beliefs and world view has an impact on others, both good and bad. (R28)

Yes, very much so. Every paper had elements that were self-reflecting. I don't think you can study without taking a little piece of the paper inside you. (R42)

Another respondent stated:

The course challenged stereotypes and highlighted the realities of challenges faced by the many different ethnic and cultural communities in New Zealand. (R47)

She went on to describe how respondents were drawn to consider the rationales women use to make decisions.

Benefits for women receiving care

When asked whether participation in online postgraduate education has benefits for the women receiving their midwifery care, 44 of the 48 respondents who answered the question agreed that it did. Benefits included having up to date evidence-informed knowledge, and an increased ability to share knowledge confidently.

My practice is increasingly evidence based. (R14)

Studying to determine best practice allows a level of confidence when caring for women. (R31)

...my research and critique skills have developed and this will have a wide-ranging effect on my ability to inform my clients and colleagues about research and options for care. (R7)

The postgraduate study has benefitted my women – knowledge, clinical skills and resources I bring to their care has [sic] more depth. (R10)

Respondents felt they had a better understanding of medical conditions and their effect on pregnancy, increased expertise, and, as a result of their study, were able to discuss conditions with accuracy and confidence.

I have more knowledge and skills when caring for women with complex medical conditions. (R37)

The women benefit from the increased level of expertise that I have developed during my education online. (R14)

I have been able to utilise ... knowledge whilst providing support during low risk labour/birth. (R31)

I now have a greater understanding of the physiological changes that relate to GDM, and am able to explain this in a simplified manner to the women I care for. This combined with education for women in regard to diet and exercise has resulted in me feeling greater confidence to continue to care for them after having a positive GDM result, without having to hand them completely over to secondary services. (R47)

Postgraduate education benefitting midwifery and medical colleagues was also mentioned, as respondents shared knowledge they had gained.

I have led presentations regarding the topic I based my case study on and also teach others more about the topic as my knowledge has increased hugely. (R37)

I have a position that calls for "practical", on the go, clinical support and education. Having the knowledge on adult education helps me approach every situation customised for the colleague who is learning. (R46)

Most of the qualitative comments provided by the midwives were positive about their experience of online education, and they could articulate how this education had benefitted both themselves, personally and professionally, and also the women in their care. Some midwives commented negatively about some aspects of online study. Overall, 240 individual “positive” and 54 “negative” comments were made across all aspects of the survey. Negative comments typically related to midwives’ unfamiliarity with the online environment, or frustration when technical issues, like bandwidth speed, interfered with their ability to be part of discussions. Two midwives suggested that without the virtual classroom discussions and forums they would have found studying this way quite isolating. One midwife found that, although the courses themselves were interesting, the “juggle” of study alongside working and family commitments was difficult. One found access to library resources problematic, and one felt the range of topics on offer at the time did not suit her rural midwifery practice. All of these comments are valuable to reflect upon for the ongoing development of the programme. The “student experience” aspect of online postgraduate study will be addressed more fully in an upcoming publication.

DISCUSSION

The demographic profile of respondents in the OP postgraduate midwifery survey was congruent with that of the midwifery workforce as a whole at this time in Aotearoa/New Zealand in terms of gender and average age (Table 1).

Table 1. Demographic profile of OP survey respondents cf. NZ midwifery workforce (MCNZ, 2013)

	OP survey	%	MCNZ workforce survey	%
Gender	Female	100	Female	99.8
	Male	0	Male	0.2
Ethnicity	Māori	5	Māori	5.1
	Pasifika	0	Pasifika	0.9
	Pākehā (non-Māori)	75	Pākehā (non-Māori)	65.1
	Other	20	Other	28.8
Work type	Self employed	18	Self employed	32.8
	Employed	51	Employed	48.6
	Employed caseload	11	Employed caseload	5.3
	Educator	11	Educator	3.1
	Researcher	2	Researcher	0.3
	Manager	4	Manager	NR
	Not employed	2	Not employed	0.9
	-		Other	9.0
Average age of midwives	46 years		47.4 years	
Average years in practice	18 years		14.7 years	
First registration in NZ	62%		67%	

Our sample had spent slightly longer in the workforce (OP 18 years cf. MCNZ 14.7), and contained more midwives who identified as Pākehā (OP 75% cf. MCNZ 65.1) and fewer who chose “Other” as their first ethnicity (OP 20% cf. MCNZ 28.8). Similar numbers in each group (OP 62% cf. MCNZ 67) had first registered as midwives in New Zealand (MCNZ, 2013). Additionally, this profile is consistent with literature which has identified that successful online learners tend to be female and of mature age (Blum, 1999; Smyth et al., 2012).

Impact on clinical practice

The increased sense of practice confidence and enhanced knowledge attributed to online learning by our study participants are echoed in a number of other studies, which to date have focussed mostly on the practice of health professionals other than midwives. Wong and Abbruzzese’s (2011) case study research into online communities of practice with physical therapists identified that, overall, three-quarters of their learners agreed or strongly agreed that online learning had enhanced their sense of shared purpose, their learning, and their clinical decision-making skills. Similarly, Pullen’s (2006) mixed method evaluation of online continuing professional education for general practitioners and physicians noted a statistically significant improvement in both self-reported practice performance change ($p < 0.05$) and increased knowledge ($p < 0.05$).

In the nursing field, Moore et al. (2012) showed that, even one year following completion of an online education package about working with people with mesothelioma, 87.5% of nurses reported ongoing increased confidence, knowledge and a positive impact on their practice from their engagement in online study. Ongoing motivation was a feature reported by Smyth et al. (2012) in their study of post-registration nurses who were studying alongside full-time work. Seven focus groups, comprising 51 nurses (a 35% response rate to their invitation), identified that these nurses highly valued the flexibility of online education, where they could fit study in around their work and family commitments, although some found this invasive on family life. These nurses described feeling increased autonomy and self-responsibility for their learning, and suggested they were strongly motivated to increase their knowledge for enhanced problem-solving and application to practice.

A mixed methods study (Lockyer et al., 2007) of eight nurses providing care to patients with cancer described enhanced confidence in care provision, especially in relation to providing psychological support, and some aspects of technical care. As with this study, increased understanding and use of research in clinical practice featured strongly in the findings of Atack’s (2003) study which used focus groups to evaluate the impact of a sixteen-week nursing e-learning course. These participants also described increased knowledge and practice confidence, and, congruent with our own findings, suggested that their interest in pursuing further postgraduate education had been stimulated by their engagement in online learning. A further insight yielded by Atack’s study was that these nurses, by studying in their home environments, felt they had modelled lifelong learning to their children, which was a source of pride to them in addition to their successful completion of the course.

A recent New Zealand study (Calvert, Smythe, & McKenzie-Green, 2017) found that, in order to maintain competency in their specific area of practice, midwives needed to first identify their own specific learning needs. These needs were also dependent on the requirements of the women they were working with. The midwives then developed strategies to maintain their knowledge and skills. Engagement in online postgraduate education was one solution towards enabling the midwives to positively affect the care they provided to women.

“Practice transformation” is the process by which midwives develop their knowledge and skill over time (Larkin, 2015). Transformation occurs partly as a result of gaining practical experience, but also from engaging in reflective discussion about practice and from exposure to ongoing educational opportunities. “Transmitting practice” is how midwives, by communicating their

own practice transformation stories and engaging in reflective practice discussions, create a future legacy of initiating change in those around them. Many midwives in our study described how they shared their learning with their practice colleagues and with medical staff in their workplaces, demonstrating practical application of practice transformation ideas. Larkin (2015) has used the term “generativity” to describe how midwives transform and transmit practice in this way. Online educational opportunities, by overcoming some of the geographical barriers to engagement in postgraduate study, provide an important avenue for exercising generativity in the midwifery community.

Benefits to recipients of care: Women and families in our communities

While it is clear that health professionals can articulate improvements in their knowledge, practice confidence, use of research in practice and so on, none of these studies has explicitly explored how these improvements might flow on to make a difference for recipients of their care. One study that came close was that of Lockyer et al. (2007). These authors speculated that the increased ability of nurses to understand the psychological implications for patients of undergoing cancer surgery, might lead to more empathetic care which incorporates more information-sharing. This is an important step in envisioning how practice change resulting from online education might enhance the experience of surgery recipients.

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Sinclair et al.’s (2016) systematic review concluded that asynchronous e-learning was “at least as effective as traditional learning approaches, and superior to no instruction at all” (p.70) in terms of effective behavioural change in health professionals, but also identified that no literature had described improvements to patient care as a result of e-learning.

Our study has gone a step further by asking midwives to describe how they perceive their online midwifery education has benefitted women in their care. While all midwives are competent upon registration and all midwifery care is evidence-informed, these midwives have described an additional strength of improved confidence with utilising and interpreting evidence as an outcome of their postgraduate study. Their increased knowledge has enabled their conversations with both women and other health professionals to be more evidence-informed, resulting in clearer communication and increased confidence about accurate information-sharing. The midwives shared a number of practice anecdotes relating to how their up-to-date knowledge about hypertension, Sudden Unexpected Death in Infancy (SUDI), diabetes, nutrition, sexually transmitted infections, physiological birth, HIV and so on, had made a difference for a woman in their care. One midwife described how her communication skills had improved. Skilled communication is a cornerstone of the partnership relationship between women and midwives. This study therefore contributes

in a small way to reporting outcomes that relate to the recipients of care by highlighting midwives’ own perceptions that, as a result of online study, they are more confident and have improved practice knowledge, enabling enhanced communication with women, and other health practitioners they collaborate with.

STRENGTHS AND LIMITATIONS OF THE STUDY

This study has some notable strengths, including the representativeness of our sample and the lack of ambiguity in our survey questions, which resulted in a good response rate (by online survey standards) and most fields in the survey being completed accurately. Qualitative responses were extensive. Limitations include that we are unable to know how those who chose not to participate might have felt about their experiences of online education. It is possible our participants comprise a motivated group of enthusiastic learners. We have identified that focus groups, to explore the emergent themes more closely, could be a fruitful mechanism for further research. These could also enable us to identify further topics that the profession would like us to develop as future courses. Understanding how learners’ previous experiences of online learning might impact their study would lend additional insights to our work.

Implications for practice

It is likely that for registered midwives, evaluation of any form of postgraduate education would elicit similar responses in relation to increased knowledge, practice confidence and a necessarily subjective perception of improved care for women and their families. We are not suggesting distance education as a substitute for more traditional methods of learning such as workshops and face-to-face courses, which will continue to suit some midwives better, as well as some providers of their education. Our contribution to the landscape of ongoing education for midwives is to suggest that, despite some limitations, online delivery of education is effective, and improves accessibility for midwives.

CONCLUSION

The survey respondents were very clear that the online postgraduate midwifery education they had engaged in does inform midwifery practice, and therefore the care that women in Aotearoa/New Zealand receive. In their opinion, the additional knowledge the midwives gained had positive benefits for the women and families they provided care to. Being delivered online also enabled midwives to engage more easily with postgraduate midwifery education, through it being accessible to those for whom accessing educational opportunities is challenging, whether through distance, availability or practice commitments. Online postgraduate midwifery education is an effective option for ongoing practice improvement and can contribute to practice transformation and transmission, keys to ongoing professional development for the whole midwifery community.

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