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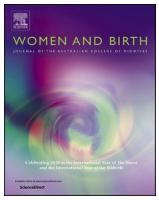

"It would be nice to have more than basic support": A learning needs assessment survey of midwifery faculty in low- and middle-income countries of the Asia Pacific region

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ABSTRACT

Background: The provision of high-quality midwifery education relies on well-prepared educators. Faculty members need professional development and support to deliver quality midwifery education.
Aim: To identify development needs of midwifery faculty in low- and middle-income countries of the Asia Pacific region, to inform program content and the development of guidelines for faculty development programs.
Methods: An online learning needs assessment survey was conducted with midwifery faculty from low- and middle-income countries in the Asia Pacific Region. Quantitative survey data were analysed using descriptive statistics. Textual data were condensed using a general inductive approach to summarise responses and establish links between research aim and findings.
Findings: One hundred and thirty-one faculty completed the survey and a high need for development in all aspects of faculty practice was identified. Development in research and publication was the top priority for faculty. Followed closely by leadership and management development, and then more traditional activities of teaching and curriculum development. Preferred mode of program delivery was a blended learning approach.
Discussion: Historically, programs of faculty development have primarily focussed on learning and teaching methods and educational development. Yet contemporary faculty members are expected to function in roles including scholarly activities of research and publication, institutional leadership and management, and program design and implementation. Unfortunately, programs of development are rarely based on identified need and fail to consider the expanded role expectation of contemporary faculty practice.
Conclusion: Future midwifery faculty development programs should address the identified need for development in all expected faculty roles.

Statement of Significance

Problem

Little is known about the development needs of midwifery faculty despite the availability of faculty development programs. Current programs predominantly focus on learning and teaching methodologies which is only one aspect of faculty practice and most programs have not been developed from a needs-based approach.

What is already known

The development and strengthening of those who teach is needed to improve the quality of care provided by maternity health professionals and in turn, to reduce maternal and newborn mortality. In high-income countries (HIC), it is common for education institutions to offer faculty development programs. In low- and middle-income countries (LMIC), faculty development is more commonly offered through donor-funded high-income country partnerships, with programs that may not be designed for, or with, the intended participants. In some instances, no faculty development is offered.

What this paper adds

This research identifies the needs and priorities for development of midwifery faculty in LMICs of the Asia and Pacific Regions. Findings from this research will provide evidence-based guidance for future programs of midwifery faculty development.

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Introduction

High level evidence supports midwives and nurses as key to the provision of Universal Health Care and to improving health outcomes for all [1]. Equally critical in improving health outcomes is ensuring those who educate the next generation of midwives and nurses are prepared and supported to provide high-quality education [1]. The development and strengthening of those who teach, commonly referred to as faculty development, is an important strategy to improve the quality of care provided by maternity health professionals and in turn, to reduce maternal and newborn mortality [2].

Numerous regional and global reports call for urgent investment in midwifery education, including the strengthening of curricula for programs leading to midwifery registration, and development and support for the faculty who educate the future workforce [1,3–6]. The most recent State of the World's Midwifery Report includes a call for urgent investment in midwifery education alongside investment in health workforce, service delivery, and leadership and governance [4]. The Strengthening Quality Midwifery Education for Universal Health Coverage 2030: Framework for Action's seven step action plan includes a focus on faculty as a vital step to improving the quality of midwifery education and in-turn service provision [6]. This focus on faculty includes the provision of programs of development that support midwifery educators to demonstrate the core competencies expected of midwifery faculty [7].

The provision of faculty development should be systematic, informed by professional standards, and based on identified individual and institutional need as this is more likely to lead to a change in faculty practice [8,9]. Faculty development activities or programs should be carefully planned and designed according to need, implemented with consideration for context of learning and, followed up with rigorous evaluation of intended outcomes [10–12]. Unfortunately, this is not usually the reality [13]. Historically, programs of faculty development were designed according to perceived need or traditional faculty roles, and program evaluations focussed on lower-level evaluation processes such as participant satisfaction and increases in confidence levels [12,14,15]. The majority of program evaluations do not adequately measure changes in behaviour or improved outcomes occurring as a result of the development [12].

The perceived development needs often include a heavy focus on the delivery of teaching at the detriment of increasingly common roles expected of faculty members. Common faculty roles include curriculum design and development; research and scholarly practice; and, leadership and management. These areas of faculty practice are often not included in faculty development programs [16]. This is despite the WHO Midwifery Educator Core Competencies [7] including expected competence in broader areas of education practice such as curriculum revision, monitoring, implementation and evaluation. Other midwife educator competency domains include an expectation of leadership, management, and advocacy skills, and the ability to initiate and sustain changes that strengthen education practice. If competence is expected in all these areas of faculty practice, then programs of development should be designed to address these competency domains and be accessible for all midwifery faculty.

In high-income settings, the educational institution is likely to provide opportunities for development of faculty but in low- and middle-income country (LMIC) settings this is less likely to occur [2,17,18]. The reality in low-resource settings is a heavy reliance on partnerships with high-income countries [16]. This reliance on external partnerships can contribute to an ad-hoc approach to the delivery of programs. Unfortunately, often the nature of international assistance in the delivery of education programs, is a focus on short-term outcomes as opposed to sustainable changes [19,20]. Individual, institutional or country needs are often not considered and pre-existing programs are applied in contexts they were not designed or developed for [21,22].

The provision of development programs without consideration for the specific needs of the target population may fail to produce the intended impact or outcomes of the development program. Undertaking a learning needs assessment (LNA) should be considered an essential step in planning programs of development [8,23]. The LNA should use a systematic approach to identifying development needs and most commonly includes the use of a survey [8], but can also include interviews, and reviewing available literature and professional standards/competencies [23]. Despite strong recommendations for the conduct of a learning needs assessment using several data collection methods, prior to program development, this rarely occurs.

The aim of this paper is to identify the development needs of midwifery faculty in low- and middle-income countries of the Asia Pacific region, to better inform program content, modes of delivery, and as part of a broader program of research to develop evidence-based guidelines for future faculty development programs. This paper reports on outcomes of a learning needs assessment survey for faculty development programs and is part of a larger program of research that is focussed on midwifery faculty development.

Methods

Setting and participants

The setting for the LNA survey was low- and middle-income countries (LMIC) in the Asia-Pacific region (Table 1). We used the United Nations Population Fund (UNFPA) defined regional grouping. The study focus was on countries where midwifery is a recognised or emerging cadre of health professionals. The Human Research Ethics Committee at the University of Technology Sydney, Australia appraised and approved the study in April 2023. HREC approval number: ETH23-8059

The survey consent form invited participants to complete the survey if they worked in an education institution where midwifery is taught, either as a stand-alone program or taught as part of a nursing education program, and part of their role includes teaching midwifery. Convenience and snowballing sampling were used. Convenience sampling is economical and efficient [24] in reaching a large cohort. Due to

Table 1
Respondents' Characteristics.

Characteristic (n= 131)	*n=*	*%*
Identified Gender		
Female	127	96.9
Male	4	3.1
Age Ranges[*]		
Under 30	7	5.3
31–40	35	26.7
41–50	55	42.0
51–60	29	22.1
Over 61	5	3.8
Years as Faculty[*]		
Less than 1 year	5	3.8
1–5 years	25	19.1
6–10 years	30	22.9
11–15 years	29	22.1
More than 15 years	40	30.5
Did not answer	2	1.5
Geographic Region[**]		
Pacific (Fiji, Kiribati, Marshall Islands, Samoa, Solomon Islands, Tonga, Vanuatu and including Papua New Guinea)	36	28
Asia (Afghanistan, Bangladesh, Bhutan, Cambodia, China, India, Indonesia, Iran, Laos, Maldives, Myanmar, Nepal, Pakistan, Philippines, Timor Leste)	92	70
Did not answer	3	2

[*] Rounding means the totals may not exactly equal 100.00%
[**] United Nations Fund for Population Advancement (UNFPA) defined regional grouping

midwifery education activity in the region, we were fortunate to have access to an established Community of Practice of midwifery educators through which we could invite participation. The Community of Practice was established by UNFPA Asia Pacific Regional Office as part of a program of faculty development and we received permission to advertise the survey in the online forum.

Data collection

No validated survey tool for determining the development needs of midwifery or health professionals' faculty was identified. A bespoke survey was developed based on findings of a scoping review identifying common content, delivery modes and evaluation process of faculty development programs in nursing and midwifery [16]. The survey was initially tested with a diverse group of expert midwifery faculty attending a midwifery education symposium held as part of the International Confederation of Midwives Conference in Bali in June 2023. Pre-testing was used to ensure content, flow, and questions were clear, consistent, and easy to follow. Slight editorial alterations were made based on the feedback from the pre-test. Unfortunately, due to resource constraints, the survey was only available in English, so a level of English language proficiency was required for completion.

An invitation to complete the electronic survey was circulated in the existing Asia and Pacific regions' communities of practice in midwifery education. Potential participants were asked to share the link with midwifery faculty/educators. The survey invitation was initially shared with an estimated 300 midwifery faculty, with 131 completions giving approximately a 44% completion rate. However, due to the potential for snowballing through sharing of the invitation with faculty colleagues, this completion rate may not be accurate.

Data analysis

Responses were analysed using quantitative descriptive statistics including frequency and percentage as no testing of hypothesis was involved. Textual data from comment boxes were condensed using a general inductive approach to summarise responses and establish links between findings and the aim of the research [25]. Whilst the majority of data collected and analysed were of a quantitative nature, we did collect and analyse a small component of textual qualitative data. Given most of this research involves participants from low- and middle-income countries, low resource environments and/or previous or continued colonized nations, it is important that as authors we acknowledge privilege and position and recognise how this impacts on research focus and interpretation. As such, we recognise our privileged position as midwives and midwifery faculty members in a high-resource setting. We are grateful to have worked closely with midwifery faculty across the Asia and Pacific regions, and this has motivated us to ensure the needs and experiences of midwifery faculty in LMICs are shared through research and broad dissemination of findings.

Findings

One hundred and thirty-one midwifery faculty completed the survey. The characteristics of the respondents are presented in Table 1. As expected and due to the global gender-balance in the profession of midwifery, the vast majority (97%) of respondents identified as female. Due to a general expectation that educators in midwifery would spend time in building skills, knowledge, and competence in professional practice before joining faculty, more than two-thirds (68%) were over 41 years of age. Three-quarters of respondents (75%) reported more than five-years' experience as a faculty member. There was reasonable geographical spread over the targeted regions with just over two-thirds coming from the Asia region and just under one-third from the Pacific (including Papua New Guinea) region. Whilst Papua New Guinea is not classified as a Pacific Island, it sits on the Pacific rim so is included in the Pacific region here.

Faculty capacity strengthening

Using a five-point answer Likert scale from strongly agree to strongly disagree, respondents were asked to rate identified areas of faculty practice where they would like the opportunity to strengthen their capacity (Table 2). The responses were analysed by combining positive (Strongly Agree/Agree) and negative (Strongly Disagree/Disagree) answers. Overwhelmingly, in all aspects of identified faculty practice, respondents indicated the need for capacity strengthening or development. The top two identified areas for faculty development, both with 96% of positive responses were teaching using simulation, and capacity building to support the conduct of research. The two least requested areas for development were online and face-to-face teaching, however positive responses to these areas were still high at 87% and 90% respectively.

In addition to the aspects of faculty practice listed in the survey questions, the free-text comments associated with faculty capacity strengthening identified several other aspects of expected faculty practice. Respondents identified the need for strengthening capacity in counselling and pastoral care for students. One respondent explained:

> … we provide counselling for our students since we are the first contact person for the students, but we lack counselling knowledge… (Respondent 30)

Coaching or mentoring was also identified as an area for development. Additionally, capacity strengthening in technological advances such as learning management platforms and implications of artificial intelligence (AI) on faculty practice was also a concern for some, with one responder stating:

….*As Artificial Intelligence will coming [sic] to the faculty needs, I would like to strengthen my capacity in [using] Artificial Intelligence*…. (Respondent 52)

Respondents were asked to rank, in order of time spent in their work as a faculty member, the identified areas of faculty practice. The most common activity was face-to-face teaching, and the least time was spent in research activities and writing for publication. Respondents identified the top three activities that consumed most of their time as being face-to-face and online teaching, and clinical teaching using simulation. The least amount of faculty time was spent on writing for publication, program management and institutional leadership.

Following rating and ranking faculty development or capacity strengthening, survey responders were asked, using free text, to list their top three areas/topics they would like to strengthen to assist them in their faculty role. The free form text responses were broadly themed. The broad themes were not dissimilar to the activities listed in Table 2. and included the following in order of popularity (Table 3.):

The least common faculty activity, research and publication, was identified as the top priority for development. This was followed closely by leadership and management development, and then the more traditional faculty role activities of teaching methodologies and curriculum development.

Clinical practice

Clinical practice development was requested as a form of faculty development. Respondents were asked if they were currently working in clinical practice and to indicate when they last worked in clinical practice. Just under half of respondents (49%) indicated that were not currently in clinical practice. Forty-two percent indicated they were current in clinical practice with nine percent not answering the question. However, of the 42% who indicated they were current in clinical practice, almost a third stated they had not worked clinically in the past 12 months. When asked to choose when they last worked in clinical practice, just over 60% indicated they had not worked in practice within the

Table 2
Faculty Capacity Strengthening.

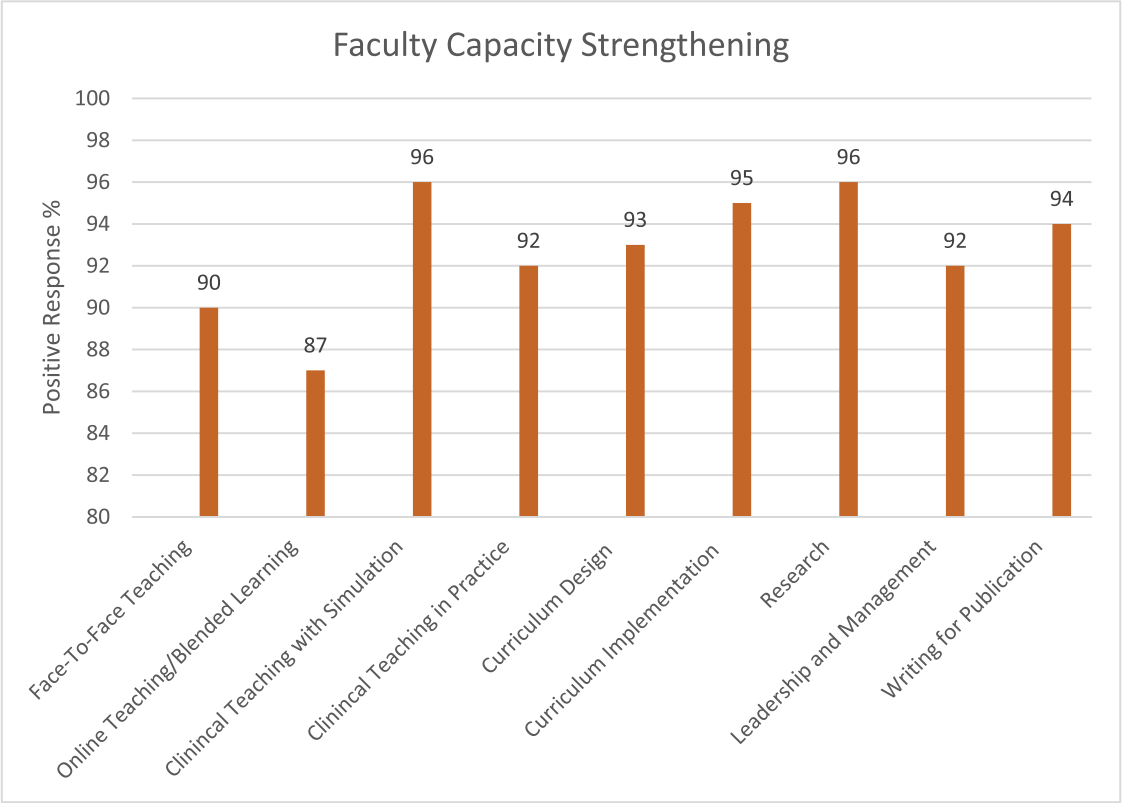
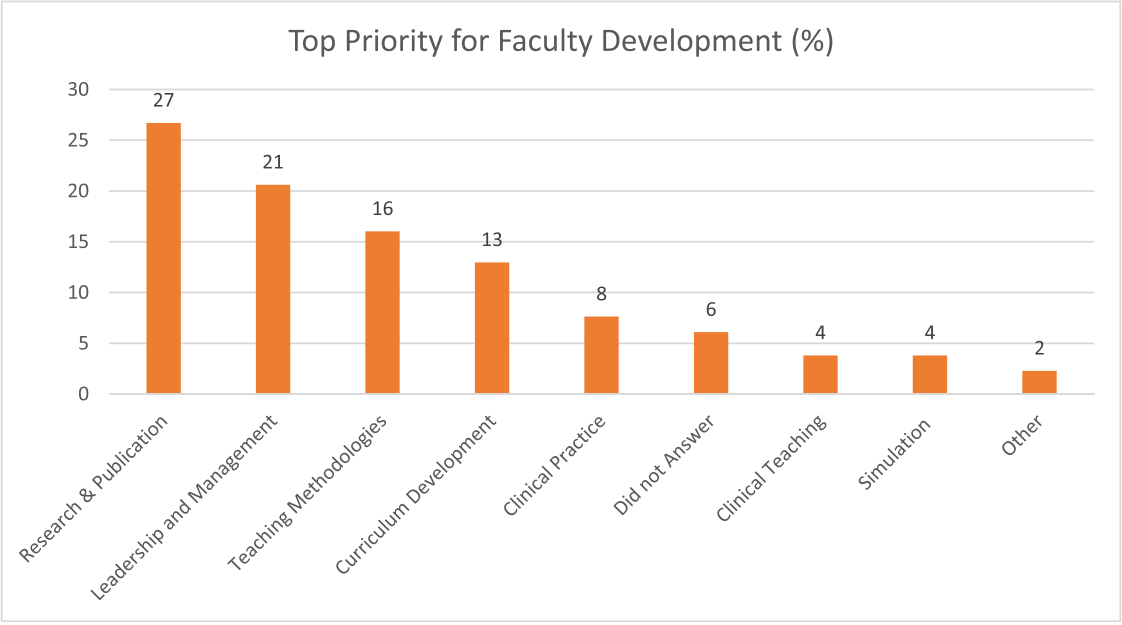


Table 3
Priority for Faculty Development.



past 12 months. When asked to prioritise development needs, many faculty listed clinical skills as a priority for development, with one stating:

> …I would like to attend a refresher course on EMOC to upgrade my midwifery skills and knowledge… (Respondent 35)

Another respondent, identified the need to identify ways to allow

faculty to spend time in the clinical environment through their response to the final survey question asking them to provide any further comment on their needs for developing and strengthening their work as midwifery faculty:

> …How manage [sic] time for clinical practice? (Respondent 128)

Faculty development mode of delivery

When asked the preferred mode of delivery for programs of faculty development, with options being online only, face-to-face only, blended with majority online or blended with majority face-to-face, respondents identified the blended approach that delivers mostly online with limited face-to-face learning opportunities as most popular. One respondent justified the response by commenting:

> ….Hybrid [Blended] modules is much more effective because not every one of us are [sic] good in online sessions, but when it comes to face to face the interactions motivates learning and therefore, hybrid is good for active participation and concentration…. (Respondent 30)

The next preferred mode was also blended but with a focus on face-to-face, supported with limited online learning opportunities. Overall, face-to-face delivery option only was the least favoured mode, however, when it was the respondent's preferred mode, it was often chosen due to internet connectivity problems, as described here

> … We have problems and challenges of online, technical, and electrical issues for online education… (Respondent 68)

However, Asia region respondents were more likely than Pacific to rank online only as favoured delivery (25 vs 17%) and Pacific respondents were more likely to rank face-to-face only higher than Asia participants (28 vs 20%).

Discussion

This study investigated the development needs of midwifery faculty in low- and middle-income countries of the Asia and Pacific Regions. Our LNA survey aimed to not only identify perceived development needs, but to identify which area of development was considered high priority for faculty, and what mode of delivery for programs of development was preferred. Focussing faculty development program content on identified needs and priorities is important in every setting but becomes crucial in resource-limited educational environments of low- and middle-income countries. Research results will be used to inform future design and delivery of programs of faculty development and global guidelines for midwifery faculty development.

Despite widespread recognition of the importance of learning needs assessments in the design and delivery of educational and development programs [8,9,13,26] currently, in low- and middle-income countries across the region and globally, intended participants have little or no input into program development [16,27]. Commonly, faculty development programs designed for high-income settings are delivered in other settings without regard for identified needs or priorities, and in some cases with little consideration of culture or context settings [20,27]. Individual, institutional, or country needs are often not considered and pre-existing programs are applied in contexts they were not designed or developed for [21,22,28]. This creates an opportunistic, rather than targeted approach to faculty development and is often associated with international aid activities that deliver time-bound programs and fail to provide the longer term support required for meaningful change [29]. When programs of professional development are based on identified need, sustainable change and development is more likely [11,30].

Historically, programs of faculty development in the health professions primarily focussed on learning and teaching methods and educational development, as faculty were generally expert clinicians who lacked experience or qualifications in education [11,31,32]. Additionally, teaching and learning approaches and practices were considered the mainstay of the role of a faculty member. Whilst our LNA survey results indicate learning and teaching activities remain a key role of faculty, contemporary faculty members are expected to function in a number of other roles. Contemporary faculty roles include scholarly activities such as research and grant acquisition, institutional leadership and management, and program design and implementation [11,31–33]. In high-income higher education settings the expectation of scholarly excellence through leadership, research and publication has increased over the last few decades [34] and this expectation is now becoming more common in low- and middle-income settings and is driving the need for development that addresses all expected faculty roles [35]. This expectation of fulfilling the broader role of faculty was evident in our survey results, with the top priority for development being identified as conduct of research and associated writing for publication.

As identified in our survey and more broadly, research and peer-reviewed publications are linked to funding and promotion in the higher education systems, and this is the case in all-resource settings [36]. However, historically faculty development programs have focussed on the more educational aspects of the role. As such, although there is an increasing expectation of conduct of research and associated publications, there is little development offered in this area. Furthermore, the relatively recent move of midwifery education program delivery from vocational education in schools of nursing and midwifery to the higher education university settings in LMICs has resulted in a lack of development in the aspects of faculty roles in higher-education settings in LMIC [37]. In high-income settings, faculty usually access research training through supported research degrees, but this is not the case in many LMIC settings.

Compounding the issue of access to development opportunities in research training in LMICs, is the issue of midwifery, and therefore midwifery faculty, as a gendered profession. This plays out clearly in our survey with almost 97% of respondents identifying as female. Faculty responding to the survey face barriers for research development and publishing because of their limited access to development opportunities, location in LMICs, their identified gender, the profession in which they work, and the population they serve [38]. The impact of the 'gender trifecta' of majority female faculty working in a majority female profession providing care for a majority female population [39] contributes to ongoing inequitable access to development and recognition of the midwifery profession as a whole [40].

Our needs assessment survey demonstrated requests for capacity strengthening in all identified faculty roles was strong. Likert scale positive responses ranged from 87% positive response rate in identifying the need for capacity strengthening in online or blended learning, through to 96% positive responses for capacity strengthening in clinical teaching using simulation and, in research. Although increasingly popular in high-resource education settings, scaling up the use of learning through simulation in LMIC is hindered by lack of functional simulation equipment, lack of funding for consumables used in simulated clinical activities, lack of simulation learning spaces, and a lack of faculty development on the use of simulation [41,42]. These identified barriers may contribute to a lack of ability to implement simulated learning activities [43] and resulted in the high identified need in our survey for development in this aspect of midwifery education. The slightly lower positive response rate for capacity strengthening in online or blended learning may be due to similar systemic barriers such as poor connectivity, lack of access to technology, and in particular, the resource-limited healthcare and education environments of LMIC [44]. Alternately, the slightly lower identified need could be due to the recent experience of rapid implementation or scale-up of blended learning during the Covid-19 pandemic [45].

Following repeated calls in global research and reports for urgent investment in leadership capacity in the midwifery profession it is not surprising that the midwifery faculty in our survey prioritised leadership

and management development above the more traditional roles of a faculty member [1,3,4,6,46]. Recently, some midwifery faculty development programs have provided development in leadership and management [47–49]. Capacity strengthening in leadership and management is seen as being crucial in overcoming challenges face by faculty in LMIC. Integrating leadership and management into development programs reportedly led to increased managerial responsibilities and expanded opportunities for leadership roles [49,50].

Limitations

Limitations of the study include the wide variation of faculty practice across the countries of the regions included. However, we had representation from 23 countries across the region which may help in identifying broad areas of need from a regional and/or global perspective. In addition, although we had good representation from many countries across the region, due to resource constraints, the survey was only available in the English language, so responders were required to have proficiency in English to complete the survey. This will have limited participation for many.

A further consideration is the pre-existing relationship the research team and some survey responders have, or may have had, due to faculty development work in the region. However, these relationships may have also contributed to the engagement in the survey and the trust required to identify areas of faculty practice that require strengthening.

Conclusion

Identifying and addressing the development needs of midwifery faculty is a vital step in strengthening quality midwifery education and care provision in all resource settings. However, programs of faculty development are often not informed by faculty needs, and in LMIC are either not accessible or not context specific. Our survey provides insight into the learning and development needs of midwifery faculty in LMIC of the Asia and Pacific regions and identified a high need for development in all faculty roles. Faculty identified and prioritised a need for development in undertaking research and writing for publication as there is an increasing expectation that these activities form part of contemporary faculty practice. Contemporary faculty members are also expected to function in many other roles including institutional leadership and management, and program design and implementation. As such, programs of development need to be accessible, consider resource context, and be designed to address development of all roles expected of midwifery faculty.

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Ethical Statement

The Human Research Ethics Committee at the University of Technology Sydney appraised and approved the study in April 2023. HREC approval number: ETH23-8059

Authorship statement

Rachel M. Smith: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Visualisation, Writing – original draft, Writing – review & editing. **Joanne E. Gray**: Conceptualization, Formal Analysis, Methodology, Validation, Writing - review and editing. **Caroline S.E. Homer**: Conceptualization, Data curation, Formal analysis, Funding acquisition, Methodology, Validation, Visualization, Writing - review and editing.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper. Caroline Homer is the Editor-in-Chief of Women and Birth and as such played no role in the decisions around this paper. The Deputy Editor, Linda Sweet, managed all decisions and correspondence.

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References

[1] World Health Organization, Global strategic directions for nursing and midwifery 2021-2025, World Health Organization, Geneva, 2021.
[2] F. West, C. Homer, A. Dawson, Building midwifery educator capacity in teaching in low and lower-middle income countries. A review of the literature, Midwifery 33 (2016) 12–23.
[3] UNFPA, UNFPA Global Midwifery Strategy: 2018-2030, UNFPA, New York, 2018.
[4] UNFPA, ICM, WHO, The State of the Worlds Midwifery Report 2021, UNFPA, New York, 2021.
[5] UNFPA, WHO, Pacific Community, UNICEF. The State of the Pacific's Reproductive, Maternal, Newborn, Child Adolescent Health Workforce, UNFPA, Suva, Fiji, 2019.
[6] World Health Organization, Strengthening Quality Midwifery Education for Universal Health Coverage 2030: Framework for Action, World Health Organization, Geneva, 2019.
[7] World Health Organization, Midwifery Educator Core Competencies, World Health Organization, Geneva, 2013.
[8] M.S. Al-Ismail, L.M. Naseralallah, T.A. Hussain, et al., Learning needs assessments in continuing professional development: A scoping review, Med. Teach. 45 (2) (2023) 203–211.
[9] L. Behar-Horenstein, C. Garvan, F. Catalanotto, C. Hudson-Vassell, The role of needs assessment for faculty development initiatives, J. Fac. Dev. 28 (2) (2014) 75–86.
[10] S.A. Ahmed, N.N. Hegazy, A.P. Kumar, et al., A guide to best practice in faculty development for health professions schools: a qualitative analysis, BMC Med. Educ. 22 (1) (2022) 150.
[11] Y. Steinert, Faculty Development: Core Concepts and Principles, in: Y. Steinert (Ed.), Faculty Development in the Health Professions: A Focus on Research and Practice, Springer Netherlands, Dordrecht, 2014, pp. 3–25.
[12] N. Fernandez, M.C. Audétat, Faculty development program evaluation: a need to embrace complexity, Adv. Med. Educ. Pract. 10 (2019) 191–199.
[13] D. Fallis, S. Irwin, R. Cervero, S. Durning, Frameworks to guide faculty development for health professions education: a scoping review, J. Contin. Educ. Health Prof. 42 (3) (2022) 180–189.
[14] L. Behar-Horenstein, H. Kuang, L. Tolentino, H. Zhang, Faculty development in the health professions a review of the literature, J. Fac. Dev. 33 (2) (2019) 77–96.
[15] Kirkpatrick Partners, 2023. The Kirkpatrick Model. https://www.kirkpatrickpartners.com/the-kirkpatrick-model/ (accessed 7 December 2023).
[16] R.M. Smith, J.E. Gray, C.S.E. Homer, Common content, delivery modes and outcome measures for faculty development programs in nursing and midwifery: a scoping review, Nurse Educ. Pract. 70 (2023) 103648.
[17] C. Sommers, C.J. Rio, Nursing Education in Low and Lower-Middle Income Countries: Context and Trends, in: D. Nestel, G. Reedy, L. McKenna, S. Gough (Eds.), Clinical Education for the Health Professions: Theory and Practice, Springer Singapore, Singapore, 2020, pp. 1–14.
[18] K. Abid, Faculty development: a need in time for educators in healthcare, JPMA J. Pak. Med. Assoc. 63 (4) (2013) 428–431.
[19] A. Riddell, M. Niño-Zarazúa, The effectiveness of foreign aid to education: what can be learned? Int. J. Educ. Dev. 48 (2016) 23–36.
[20] S. Friedman, F. Cilliers, A. Tekian, J. Norcini, 2014, International Faculty Development Partnerships, 311-329.
[21] K. Koto-Shimada, S. Yanagisawa, P. Boonyanurak, N. Fujita, Building the capacity of nursing professionals in Cambodia: Insights from a bridging programme for faculty development, Int. J. Nurs. Pract. (John Wiley Sons, Inc.) 22 (2016) 22–30.
[22] J.P. Ndayisenga, M.K. Evans, Y. Babenko-Mould, M. Mukeshimana, Nurse and midwife educators' experiences of translating teaching methodology knowledge into practice in Rwanda, Int. J. Nurs. Educ. Scholarsh. 17 (1) (2020) 1–13.
[23] J. Pilcher, Learning needs assessment: not only for continuing education, J. Nurses Prof. Dev. 32 (4) (2016).
[24] J. Jager, D.L. Putnick, M.H. Bornstein, More than just convenient: the scientific merits of homogeneous samples, Monogr. Soc. Res. Child Dev. 82 (2) (2017) 13–30.

[25] A. O'Cathain, K.J. Thomas, "Any other comments?" Open questions on questionnaires – a bane or a bonus to research? BMC Med. Res. Methodol. 4 (1) (2004) 25.
[26] L. Muirhead, S. Brasher, C. Vena, P. Hall, A. Cadet, Assimilation of expert clinician into the academy: a competency-based faculty development plan, Nurse Educ. 46 (2) (2021) 121–125.
[27] L. Keiller, C. Nyoni, C. van Wyk, Online faculty development in low- and middle-income countries for health professions educators: a rapid realist review, Hum. Resour. Health 20 (1) (2022) 12.
[28] C. Evans, R. Razia, E. Cook, Building nurse education capacity in India: insights from a faculty development programme in Andhra Pradesh, BMC Nurs. 12 (1) (2013) 8–15.
[29] M. Burns, J. Lawrie (Eds.), Where It's Needed Most: Quality Professional Development for All Teachers- Summary Document, Inter-Agency Network for Education in Emergencies, New York, 2015.
[30] Y. Steinert, K. Mann, B. Anderson, et al., A systematic review of faculty development initiatives designed to enhance teaching effectiveness: A 10-year update: BEME Guide No. 40, Med. Teach. 38 (8) (2016) 769–786.
[31] D.D. Samarasekera, S.S. Lee, A. Findyartini, et al., Faculty development in medical education: an environmental scan in countries within the Asia pacific region, Korean J. Med Educ. 32 (2) (2020) 119–130.
[32] M. Haas, J. Triemstra, M. Tam, et al., A decade of faculty development for health professions educators: lessons learned from the macy faculty scholars program, BMC Med. Educ. 23 (1) (2023) 185.
[33] Y. Steinert, Commentary: faculty development: the road less traveled, Acad. Med. 86 (4) (2011).
[34] P. Altbach, J. Salmi (Eds.), The Road to Academic Excellence: the Making of World-class Research Universities, The International Bank for Reconstruction and Development/The World Bank, Washington, 2011.
[35] J. Joseph Jeyaraj, N. Wald, T. Harland, Higher education teachers' experiences of becoming research active: striving for university status in the Global South, Asia Pac. Educ. Rev. 22 (3) (2021) 417–425.
[36] L.F. Huenneke, D.M. Stearns, J.D. Martinez, K. Laurila, Key strategies for building research capacity of university faculty members, Innov. High. Educ. 42 (5-6) (2017) 421–435.
[37] S. Neal, A. Nove, S. Bar-Zeev, et al., An analysis of the global diversity of midwifery pre-service education pathways, Women Birth 36 (5) (2023) 439–445.
[38] F. Likis, T. King, Gender diversity and inclusion in midwifery, J. Midwifery Women's Health 65 (2) (2020) 193–194.
[39] J. Lundine, I.L. Bourgeault, J. Clark, S. Heidari, D. Balabanova, The gendered system of academic publishing, Lancet 391 (10132) (2018) 1754–1756.
[40] Association of Ontario Midwives. Pay equity for midwives. 2023. https://www.ontariomidwives.ca/pay-equity-midwives# (accessed 8 December 2023).
[41] J. Baayd, Z. Heins, D. Walker, et al., Context matters: factors affecting implementation of simulation training in nursing and midwifery schools in North America, Africa and Asia, Clin. Simul. Nurs. 75 (2023) 1–10.
[42] L. Puri, J. Das, M. Pai, et al., Enhancing quality of medical care in low income and middle income countries through simulation-based initiatives: recommendations of the Simnovate Global Health Domain Group 3 (2017) S15.
[43] M. Bogren, B.B. Kaboru, M. Berg, Barriers to delivering quality midwifery education programmes in the Democratic Republic of Congo — An interview study with educators and clinical preceptors, Women Birth 34 (1) (2021) e67–e75.
[44] Ladur A., Kumah E., Egere U., et al. A blended learning approach for capacity strengthening to improve the quality of integrated HIV, TB, and Malaria services during antenatal and postnatal care in LMICs: A feasibility study. *medRxiv* 2023: 2023.05.04.23289508.
[45] R. Imran, A. Fatima, I. Elbayoumi Salem, K. Allil, Teaching and learning delivery modes in higher education: Looking back to move forward post-COVID-19 era, Int. J. Manag. Educ. 21 (2) (2023) 100805.
[46] G. Griffin, Z. Bradfield, K.K. Than, et al., Strengthening midwifery in the South-East Asian region: A scoping review of midwifery-related research, PLOS ONE 18 (12) (2023) e0294294.
[47] M. Bogren, S. Doraiswamy, K. Erlandsson, Building a new generation of midwifery faculty members in Bangladesh, J. Asian Midwives 4 (2) (2017) 52–58.
[48] K. Erlandsson, F. Osman, M. Hatakka, et al., Evaluation of an online master's programme in Somaliland. A phenomenographic study on the experience of professional and personal development among midwifery faculty, NURSE Educ. Pract. 25 (2017) 96–103.
[49] J.M. van Wyk, J.E. Wolvaardt, C.N. Nyoni, Evaluating the outcomes of a faculty capacity development programme on nurse educators in sub-Saharan Africa, Afr. J. Health Prof. Educ. 12 (4) (2020) 201–205.
[50] J.H. Goodman, E. Beyan, E. Johnson, Improving nursing and midwifery education in a resource-limited context: an initial evaluation, J. Nurs. Educ. 57 (12) (2018) 712–719.