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A historical narrative of the development of midwifery education in Indonesia

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ABSTRACT

Aim: To describe the history of midwifery education, present the current education programmes and explore the ways that have been undertaken to advance the midwifery profession in Indonesia.
Methods: Historical and contemporary government documents were reviewed.
Findings: The history of midwifery education in Indonesia shows a complex picture during and since colonisation with government, education institutes and association proposing different ways in which midwives were to be educated. Advocacy from the midwifery profession in Indonesia meant increasingly it is midwives who are determining how midwifery education is provided. Recent initiatives have resulted in a diploma, advanced diploma, bachelor's degree, and a master's degree in midwifery. The work of the midwifery profession advocating for midwifery education culminated in the Midwifery Act 2019. These changes in this Act will ensure that midwifery education meets the needs of women and their families but also lead to competent midwives who have the knowledge and skills to provide midwifery services at all levels of health provision. The history of midwifery in Indonesia illustrates the importance of the ICM pillars of association, regulation, and education.
Conclusion: The history of midwifery education in Indonesia shows that for too long midwifery education was decided, determined and even regulated by authorities and disciplines other than midwifery. However, when the midwifery association and regulation inform and regulate midwifery education then there is an opportunity to provide care that will make a difference in outcomes for women and their families. The historical analysis of the story of Indonesia midwifery gives insight into what is required for quality education.

Statement of significance

Problem or issue

Quality midwifery education is needed to make a difference to outcomes for women and their families. In Indonesia, three-year vocational and five-year academic-professional midwifery programme have been mandated to be eligible as an associate midwife and midwife. Dual-level programmes are a significant challenge to the provision of quality education.

What is already known?

Many factors have influenced midwifery education in Indonesia.

What this paper adds?

This historical narrative gives insight into what is needed for quality midwifery education and so improving maternal, newborn and child health in Indonesia.

Introduction

Improving maternal, newborn and child health through Universal Health Coverage (UHC) is needed to meet the Sustainable Development Goals (SDG) targets by 2030 [1]. Midwives are crucial in improving maternal, newborn, and child health outcomes and reducing maternal and neonatal mortality [2]. In Indonesia, the definition of a midwife or "*bidan*" has been adopted from the International Confederation of Midwives (ICM), and is "woman who has successfully completed a

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midwifery educational programme, has fulfilled the requirements to be legally registered to provide midwifery care in the country of registration" [2]. The midwife's scope of practice states that a midwife has to be responsible and accountable as a to offer support, respect, and counselling during pregnancy, birthing, and the post-partum period [3–5]. Midwifery education in Indonesia has evolved over the last 200 years in an effort to improve maternal and newborn health outcomes [3–11].

At present, there are 856 midwifery schools. The most recent national data recorded that midwifery schools have produced 749,866 registered midwives [12–14]. Currently, in Indonesia, 68.6% of maternity services at childbirth are provided by midwives, followed by doctors (18.5%), non-health workers (11.8%), and maternity nurses (0.3%), with 88.55% of births overall being assisted by skilled attendants. The maternal mortality rates declined from 390 per 100,000 live births in 1991–305 deaths per 1000,000 live births in 2015. Nevertheless, Indonesia contributes to the global burden of high maternal mortality rate [15,16].

The aim of this paper is describe the history of midwifery education, present the current education programmes and explore the activities that have been undertaken to advance the midwifery profession in Indonesia. Understanding the history of midwifery education, and how the past has impacted the way midwives are educated along with what is needed to ensure robust and quality midwifery education will provide insight for other countries who have similar issues to Indonesia. This paper is presented as a stimulus for discussion at a national level in Indonesia and South East Asia, where most countries are still burdened with high maternal and neonatal mortality rates and struggle to deliver high-quality midwifery education [17].

Pre-independence history midwifery education in Indonesia

Prior to the 1800s, the traditional birth attendant or *dukun* was a specialised person who accompanied women in childbirth [9,18,19]. The *dukun* was also tasked with providing contraception, assisting with fertility, and inducing abortion [9]. In the 1800s, Indonesia was colonised by, and under, the control of the Netherlands. In 1809, the Dutch governor had the idea to train Indonesian women as midwives to replace *dukun.* By 1817, European midwives trained Indonesian and European women as midwives to practice in Indonesia. At the time only Indonesian males from noble and royal families had an opportunity to pursue an education; therefore, midwifery education provided an opportunity for women from the lower classes to have a formal education [9].

In June 1850, the Dutch head of the medical service, Dr Williem Bosch, established a midwifery school in Jakarta that consisted of one year of midwifery training. The school opened with 20 students. The midwifery curriculum consisted of technical subjects: describing the human skeleton; the principles of human psychology; the dimensions of the female pelvis; the process of pregnancy; the natural and unnatural positions of the foetus and various practical rules. Students had practical experience by assisting in childbirth under supervision. It is unclear how the midwives were registered once they completed the course [9–11]. On September 2, 1875, the midwifery school for Indonesian women closed for reorganisation because of the lack of trust about the knowledge and skills among the population [9]. The majority of Indonesian women at the time preferred to be helped by the *dukun* who were also cheaper.

The midwifery school had produced about 100 graduates who worked in 21 regions where they knew the language and customs. In 1893, the school was reopened. In 1914, the school accepted female students into a two-year midwifery programme until it closed in 1915. From 1915 to 1945, the school remained closed.

Post-independence history of midwifery education

After Indonesia had gained Independence on August 17, 1945, the midwifery school admitted students from junior high school to a three-year programme. At that time, the Department of Health provided a curriculum for the midwife to assist with normal births. The hours in the curriculum covered practical work as well as study time. Midwives concentrated primarily on maternal and neonatal health care, including family planning [10,11]. From 1975 to 1984, all midwifery schools were again closed [11].

In the 1990s, graduates from three-year diploma nursing programme were educated to be midwives as part of the response to the International Safe Motherhood Conference in Nairobi held in 1987 [11,20–22]. These programmes led to a health certificate in midwifery, soon after (1993 and 1994), another programme opened which was a three-year midwifery training programme for students who had finished junior high school. The newly graduated midwives were positioned in the villages or rural areas (called village midwives or *bidan desa*) for a minimum of two years [20–22]. This village midwife programme (*Bidan Desa*) increased the number of trained midwives attending women giving birth in villages. It aimed to ensure that every woman and family had access to a health worker, especially during pregnancy and until the postpartum period [20,21,23]. The Ministry of Health intended to position one midwife in each village in the country [24–26]. More than 95% of midwives were deployed throughout the country in an effort to reduce maternal and neonatal mortality rates [21,27–29].

The Indonesian Midwifery Association has always argued that the minimum entry requirement for becoming a midwife should be completion of senior high school (12 years of high school) rather than junior high school (9 years of high school). In response to their lobbying, the government re-opened midwifery schools in some regions. In 1996, a three-year Diploma of Midwifery education programme for students from senior high school commenced. This programme had a balance of theoretical and practical midwifery knowledge focused on the needs of villagers. It was a direct-entry programme as the course was offered to female students without a nursing background [6,11,20,21]. Six different institutions in six different regions opened this three-year midwifery programme. By 1997, 15 institutions offered the programme. By 2002 there were more than 400 institutions conducting this three-year programme.

A problem arose that there were not enough midwifery lecturers to provide the education needed for the increasing numbers of students and schools (the 400 midwifery schools, had around 50 students in each school). From 1999 to 2000, a one-year Advanced Diploma of Midwifery commenced in two different universities in two different regions to educate midwives to become midwifery lecturers in the Diploma programmes.

Until 2005, the Ministry of Health had been responsible for regulating the midwifery diploma programmes. In 2006 this responsibility moved to the Ministry of Education and Culture and the number of midwifery schools increased from 50 to 750 between 2006 and 2011. The teaching and learning processes at midwifery schools became the responsibility of the Ministry of Education and Culture, while midwives' scope of practice remained the responsibility of the Ministry of Health. This has resulted in different perceptions in the two ministries about what constitutes a midwife [6,8,11]. In 2006, the first master in midwifery opened in one university, creating tensions for competitiveness among midwifery lecturers across the country due to the mandatory from the Ministry of Education and Culture that the minimum the lecturer holds a master's degree.

In 2008, a five-year academic-professional programme (Bachelor of Midwifery) commenced bringing midwifery into line with medicine and nursing as professions with an academic programme. The commencement of this five-year programme created confusion and conflict within the profession, as there was an Advanced Diploma of Midwifery programme from senior high school (12 years of high school plus a four-year midwifery programme) [30,31].

The current situation

At the current time, Indonesia offers a diploma, advanced diploma, bachelor's degree, and a master's degree in midwifery. The schools are run by universities, institutes of health science, polytechnics of health science, and academies [6,12,13,32]. The curriculum of each of the diploma, advanced diploma and bachelor's programme have some significant differences regarding the subjects taught, the clinical and skill requirements, and the entry criteria [31].

The ICM curriculum standards informed the competency-based curriculum for existing midwifery programmes [31]. The Indonesian midwifery curriculum emphasises that the body of knowledge of midwifery is unique and focuses on physiologic life cycle of a woman. The distinction of midwifery knowledge and skills among the midwifery programmes raised debate and countless questions when midwifery students have to go to the maternity services for clinical placement [14,30]. There are additional challenges when the senior midwives have had a different education from the current students.

Midwives from all pathways/ programmes in Indonesia were determined by the scope of practice for a midwife and could choose where they worked. The government policy stated that village midwives or *bidan desa* automatically became a government employees [6]. A midwife who holds a diploma is able to hold a licence to open private midwifery practice at home and work at the health facility creating a dual practice as a midwife. Being able to work privately and publicly, attracts many potential midwifery students resulting in significant growth of student numbers because it is relatively easy to get a high-income job as a midwife as all midwives deployed and employed [6,27]. The government policy about midwives changed due to many factors, and a village midwife now works under a national or local government contract and does not automatically become a government employee [33]. The regulation later changed again regarding the conditions of a village midwife [34], and led to the national debate and disagreements due to the number of vacant midwife positions across the country.

Over time, several government policies have been written, and national seminars and conferences have been held to develop a national midwifery education framework. Due to divergent views on midwifery education, a national framework of midwifery education was required. During this period, the different perspectives on competencies, including graduate profiles, of the diploma, advanced diploma, bachelor, master, and doctor of midwifery programmes have become a national debate. The different competencies across the midwifery programme related to the framework as there was no agreement among the policymakers, stakeholders and all parties at the national level in terms of the best way to educate midwives in Indonesia.

At present, the inconsistent policies about entry criteria and the different programmes creates many challenges. Studies have also raised concerns about the performance of newly graduated midwives [6–8].

Advancing the development of the midwifery profession

In Indonesia, the Midwifery Act 2019 gave autonomy to the profession. This Act enables midwives to govern their practice and includes details about the registration of midwives and all matters related to midwifery in Indonesia. The Act, which took around 15 years to develop through collective political actions, does symbolise midwives' authority and their professional recognition, which has a powerful meaning in Indonesia [31].

The ratification of the Midwifery Act in 2019 has implications for the level of education of midwives. The aims of the Act are to:

- increase the quality of midwifery education and practice.
- provide the protection and certainty of law to midwives and clients.
- potentially increase the health status of the society, primarily maternal, newborn, baby, toddler and pre-school health.

The Midwifery Act 2019 has dramatically determined the national framework for midwifery education. This framework reflects a shift of what were only vocational midwifery programmes towards two pathways to be a midwife in the Indonesian setting: three-year vocational and five-year academic-professional midwifery programmes. The legal framework implies the legal basis for academically competent and educated new midwives, including titles, roles, certification, and recertification for the midwifery workforce in Indonesia.

The current midwifery programmes includes three-year vocational and five-year academic-professional midwifery programmes. Graduates from a three-year vocational midwifery programme are at the level of an associate midwife at which midwives use their expertise at the health facilities. In comparison, graduates from a five-year academic-professional midwifery programme can use their expertise in midwifery skills autonomously as a profession to open private midwifery practices and health facilities. Academic-professional midwives can also open their own midwifery practice in the community independently. There remain challenges however, including frustration and dissatisfaction with the situation [30,31]. The three, four and five-year programmes have become a national debate due to the learning outcomes and different competencies of the diploma, advanced diploma, and bachelor of midwifery.

Challenges and opportunities

The proliferation of midwifery schools in Indonesia under differing jurisdictions has led to differences in the quality of education and has created competitiveness between schools [6–8]. The midwifery education has been scaled up in preparing new midwives; nevertheless, the country still struggles to reduce the high maternal mortality rate. The policymakers and midwifery association consider that three-year diploma and five-year academic-professional programmes are the best way to prepare new midwives in Indonesia. Some midwifery schools have been closed due to the shortage of potential midwifery students, and the marked preference among the community to become midwives has become lower. Discontinuation of new midwives to become government employees directly and difficulty in finding a job may lead to less preference of the potential students. The national data have been recorded approximately 518 diploma midwifery schools while 172 academic-professional midwifery schools have opened across the country [35,36]. The impact of the professional autonomy of midwives from the two pathways requires further research.

Conclusion

This review has highlighted midwifery education in Indonesia and explained the challenges facing the country in midwifery education. Many important lessons can be learned from Indonesia, specifically the decisions taken on the different pathways in midwifery education. Indonesia has experienced challenges due to the different policies directing midwifery education. The importance of high-quality midwifery education remains at the heart of the advances in midwifery in Indonesia.

Ethical statement

The review was part of the research as approved by the Health Research Ethics Committee (HREC), Faculty of Medicine, Padjadjaran University, Bandung, West Java, Indonesia (No 943/UN6.KEP/EC/2021 on 4 November 2021).

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CRediT authorship contribution statement

The lead author performed conceptualizing, the data collection, analysis and prepared the original manuscript. All authors contributed to drafts and approved the final manuscript.

Conflict of interest

All authors declare that we have no conflict of interest.

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