

A review of the definition and scope of practice of midwives in five representative countries[†]

Review article

Jie Li, Hong Lu, Rui Hou*

School of Nursing, Peking University, Beijing 100191, China

Received: 27 November 2017; Accepted: 21 February 2018; Published: 20 September 2018

Abstract: **Objective:** To review the definition and scope of the practice of midwives in Sweden, Finland, the United Kingdom, the United States, and Australia to find models and make suggestions for reforms in the midwifery policies of China.
Methods: This article reviewed the midwifery policies published by authorities, organizations, and governments of these countries and relevant literature in the databases of PubMed, Web of Science, Cumulative Index to Nursing and Allied Health Literature (CINAHL), China National Knowledge Infrastructure (CNKI), and Wanfang database.
Results: The definition and scope of practice of midwives in five representative countries and China were reviewed. The similarities and differences in midwifery policies among them show that most countries set standards based on the definition and scope of practice of midwives recommended by International Confederation of Midwives.
Conclusions: The definition of midwives should include registration, midwifery education, and acceptance standards. The scope of practice of midwives should specify an autonomous environment, the objective of care, the period of care involved, prescribing rights, emergency treatment, and health counseling.

Keywords: *midwife • definition • scope of practice • regulation • roles of midwives*

© Shanxi Medical Periodical Press.

1. Introduction

According to Ban Ki-moon, former Secretary General of the United Nations, the world has reached a turning point for women's and children's health.¹ In spite of significant global efforts to reduce maternal and infant mortality, millions of marginalized women and children die every year. An estimated 303,000 women and about 2.7 million newborns died in 2015 alone,² most because of complications and illnesses that could have been prevented with proper antenatal, delivery, and postnatal care services provided by midwives.² The role of midwives and the contribution they make to health care systems as they tackle public health

challenges depend, to a large extent, on the legislative framework governing their professional practice and determining who can enter the profession.³ In legislation concerning midwives, the definition and scope of practice of midwifery are very important. Once the occupation of midwife is defined, the scope of practice can be determined and a general societal understanding of the role of midwives can be attained. The definition of midwives can also serve as a reference point that professionals can use when arguing their professional status and discussing their contribution to public health challenges.³ In China, although the maternal mortality rate (21.7/100,000 in 2014) and newborn mortality rate (5.9‰ in 2014) have been declining in the past few years,⁴ this still implies large absolute numbers in view of the large population base. However, there is currently a severe shortage of midwife manpower

[†]This study was supported by the United Nations Population Fund who commissioned and funded this study (No. CHN08SRH-MIDWIFERY).

* Corresponding author.
E-mail: hourui@bjmu.edu.cn (R. Hou).

 Open Access. © 2018 Jie Li et al., published by Sciendo.  This work is licensed under the Creative Commons Attribution NonCommercial-NoDerivatives 4.0 License.

resources.^{5,6} The State of the World's Midwifery 2014¹ shows that the number of midwives in China is 0.158 per 1,000 people, which is one-twentieth the rate in Sweden and Britain and one-tenth in Malaysia.⁷ A study of the current situation of midwifery personnel in China⁸ shows that there are 0.04 full-time midwives per 1,000 people. Moreover, the acceptance standards for midwifery education and abilities of midwives need to be ascertained and improved;⁵ 42% of midwives only receive specialized middle school education and their skill levels vary greatly.^{5,9-11} The absence of a clear definition and scope of practice of midwives, related to the confusion of responsibilities and obligations, is the underlying reason for the deficiency and low quality of midwives.¹² A study on the needs of midwifery legislation in China¹² shows that 81.8% and 58.35% of respondents believed that a clarification of scope of practice and definition of midwives, respectively, is necessary.

Certain other countries have obtained great achievements in midwifery and maternal and infant health. According to Wagner,¹³ former Director of the Department of Women's and Children's Health, World Health Organization (WHO), there are three kinds of maternity care with respect to humanized birth. Some countries, such as Finland, Sweden, and New Zealand, support the autonomy of midwives' work and have lower intervention rates; other countries, such as the United States, France, and Ireland, are highly medicalized, doctor centered, and midwife marginalized; still other countries, such as Australia, the United Kingdom, and Canada have a mixture of both approaches. We chose five countries, such as Sweden, Finland, the United Kingdom, Australia, and the United States, which cover all the three types of countries and are known for low maternal and infant mortality rates. These countries, located on three different continents, are representative in terms of geographical location.

This article reviewed the definition and scope of practice of midwives and analyzed effective strategies for Chinese definition and scope of practice of midwives in the hope of helping with midwifery legal construction and standardization.

2. Methods

We reviewed policies related to the definition and scope of practice of midwives on the official websites of International Confederation of Midwives (ICM), Swedish Association of Midwives, Federation of Finnish Midwives, the Royal College of Midwives, American College of Nurse-Midwives (ACNM), Midwives Alliance of North America (MANA), National Association of Certified Professional Midwives (NACPMs), Australian College of

Midwives, National Health and Family Planning Commission of the People's Republic of China, Central People's Government of the People's Republic of China, and other related websites. Related articles published in English and Chinese were identified through PubMed, Web of Science, Cumulative Index to Nursing and Allied Health Literature (CINAHL), CNKI, and the Wanfang databases. The keywords entered were the following: "midwi*," "nurs*," "defin*," "scope," "practice," "legal*," "standard," "law," and "rule." They were entered alone or in combination using "AND," "OR."

3. Results

3.1. The definition and scope of practice of midwives recommended by authorities

3.1.1. The definition of midwives

The WHO is in charge of directing and coordinating international health within the United Nations' system. The European region of the WHO³ suggests that the definition of midwives should be expressed in relatively formal terms and with requirements such as:

- (1) Acceptance into an educational program
- (2) Successful completion of all requirements necessary for obtaining a degree from a formal educational program;
- (3) Receiving a license or being registered after the successful completion of the program.

ICM is an accredited nongovernmental organization that represents midwives and midwifery to organizations worldwide to achieve common goals in the care of mothers and newborns. It clarified the definition of midwives as follows:

According to the ICM Essential Competencies for Basic Midwifery Practice and the framework of the ICM Global Standards for Midwifery Education, a midwife must have successfully completed a midwifery educational program that is duly recognized in the country where it is located. What's more, a midwife must have acquired the requisite qualifications to be registered and/or legally licensed to practice midwifery and use the title "midwife", and demonstrates competency in the practice of midwifery.¹⁴

3.1.2. The scope of practice of midwives

According to ICM,¹⁴ the scope of practice of midwives identifies the circumstances in which the midwife may make autonomous clinical decisions and in what circumstances the midwife must practice in collaboration with

other health professionals such as doctors. Autonomous midwifery practice must be supported and enabled and should therefore include prescribing rights, access to laboratory and screening services, and admission and discharge rights. As autonomous primary health practitioners, midwives must be able to consult with and refer to specialists and have access to back-up emergency services in all maternity settings.

3.2. Review of the definition and scope of practice of midwives in five representative countries

3.2.1. Sweden

Swedish maternity care policy is a template for the practice of midwifery across the world.¹⁵ Midwives are experts in their field and are respected for their knowledge of childbirth. The infant mortality rate between 1967 and 1976 was 2‰,¹⁶ perinatal mortality rate in 1986 was 6.9‰,¹⁷ and the infant mortality rate in 2005 was 2.8‰.¹⁸

Swedish Association of Midwives, founded in 1886, is in charge of midwives in Sweden. The association works independently and actively to ensure better reproductive and perinatal care.¹⁹ Midwifery education was born at the beginning of the eighteenth century.²⁰

3.2.1.1. The definition of midwives

To receive training as a midwife in Sweden, the applicants are required to have received registration as a nurse. Midwifery training is at an advanced level and leads to a midwifery degree as the basis for the identification of a midwife. Before accepting midwifery education, which consists of 90 points (1.5 years) at college to earn a master's degree, applicants are required to finish 180 points (3 years) of undergraduate nursing education.¹⁹ After passing the examination, which requires reproductive, perinatal, and sexual knowledge and an understanding of current research and rules, they have the opportunity to be registered as a midwife. However, the requirements for applicants receiving education in different areas varied.

3.2.1.2. The scope of practice of midwives

According to the Swedish Association of Midwives, the midwife's field of work includes women's sexual and reproductive health viewed from a life cycle perspective.¹⁹ They shall provide both preventive and medical care measures as limited by the current laws.²¹ They are also responsible for midwifery research, development, and education.

Midwives in Sweden take care of male and female patients, children, teenagers, and adults. They independently handle normal pregnancy, labor, and aftercare, and they have the authority to prescribe drugs for birth control purposes. In Sweden, the midwife's work is of great importance for public health.¹⁹

3.2.2. Finland

Finland, which attaches great importance to maternal and child health services in health care delivery, is famous for having the lowest infant mortality rate in the world. The support services for mothers and children provided by the government and excellent maternal and child health serve as exemplars.²² In Finland, over 97% of women give birth in a hospital with full services. And midwives attended 85% of the births in 1996. The cesarean birth rate is 15%, and the infant mortality rate is 6.7 per 1,000 live births.

There are 16 local midwifery associations in Finland. Federation of Finnish Midwives, a nonprofit organization founded in 1919, is in charge of midwives.

3.2.2.1. The definition of midwives

A midwife is a person who regularly receives the training of midwives, which in this country is properly approved, and has successfully completed the training of midwives and thus obtained the required qualifications to become a registered midwife in the professional list and/or to obtain a legal license to practice midwifery work.²³ All midwives are required to complete university education, which consists of a three-and-a-half year general education and 1 year of midwifery education.²⁴

3.2.2.2. The scope of practice of midwives

Midwives in Finland provide necessary guidance, care, and advice to women during their pregnancy, childbirth, and child care years. They can handle childbirth under their own responsibility and take care of newborns and small children. This care includes preventive measures, discovering abnormal states, and obtaining medical assistance and carrying out emergency measures necessary when medical help is not available. They have an important task in health counseling and education not only among women but also their families and society as a whole. Work should include prenatal education and parental coaching and extend to certain areas of gynecology, family planning, and child care. They need to carry out the treatment prescribed by doctors.

In prenatal care, midwives work in interdisciplinary teams of health care workers, including physicians, occupational and physical therapists, psychologists, and social

workers in maternity health care clinics. They participate in the process of pregnancy, making 10 visits during pregnancy, and carry out childbirth education, including healthy lifestyles, avoidance of substance use, promotion of breast-feeding, preparation for childbirth, and parenting. In birthing care, midwives encourage participation in childbirth care decisions and promote a family-centered experience. Technological interventions such as fetal monitoring, intravenous infusions and episiotomies are only used when necessary and supported by evidence. During postpartum care, midwives visit mothers twice in the first 3 months to provide health education and family planning counseling and to treat gynecological infections. In the perinatal period, midwives work as consultants providing less unnecessary interventions and leading mothers to be responsible for their own health.²²

3.2.3. The United Kingdom

The infant mortality rate in 2005 was 5.0‰.¹⁸ Midwifery in the United Kingdom is an independent specialty dating back to the 1880s. Midwives are recognized and licensed through the profession's own organization, the Central Midwives' Board (under the Midwives Act of 1902). Since then, British midwives have retained their legal independence from physicians. Nursing and Midwifery Council (NMC) is an organization regulating nurses and midwives in England, Wales, Scotland, and Northern Ireland that is in charge of related laws, rules, criteria of assessment, registration, and supervision.

3.2.3.1. The definition of midwives

The definition of midwives follows the recommendations of ICM, International Federation of Gynecology and Obstetrics (FIGO), and WHO, including education, qualifications, main tasks, work places, and so on.²⁵ As for education, the applicants must meet either of the following requirements: the completion of at least 10 years of general school education containing at least 3 years of full-time theoretical and practical study or possession of qualifications as a general nurse after finishing a full-time program of a minimum 18-month duration.²⁵ The education and training programs are run only at approved educational institutions (AEIs). As for registration, midwives are required to give annual notice to the local supervising authority where they work for continuing practice²⁶ and renew their registration with NMC.²⁷

3.2.3.2. The scope of practice of midwives

Midwives are in charge of promoting and facilitating normal childbirth independently and identifying

complications in a woman or baby during childbirth. They provide physical and emotional care in homes, the community, hospitals, and other maternity services together with women and families, consisting of prenatal examination, deliver coaching, and postpartum recovery.^{26,28,29} They participate in the process of postpartum recovery such as breast-feeding and rehabilitation direction and visit neonates two to three times. They can only prescribe medicines for which they have received training and provide care in normal childbirth except for emergencies.

3.2.4. Australia

The Australian infant mortality rate in 2005 was 4.7‰.¹⁸ The midwifery development in Australia drew much from the United Kingdom. Midwifery practice regulation was market driven at first. However, midwifery is more like a category of nursing because of the lack of an educational and regulatory basis for practice. Nursing and Midwifery Board of Australia (NMBA) is in charge of regulating Australian nurses and midwives by approving their educational programs and publishing the registration standards and professional codes and guidelines. Australian Nursing and Midwifery Accreditation Council (ANMAC) is responsible for educational program accreditation.

3.2.4.1. The definition of midwives

According to NMBA, a midwife is a person who, having been regularly admitted to a midwifery educational program that is duly recognized in the country in which it is located, has successfully completed the prescribed course of studies in midwifery and has acquired the requisite qualifications to be registered and/or legally licensed to practice midwifery.³⁰ Entry-to-practice programs are delivered by universities accredited by government or a higher education provider leading to a bachelor or postgraduate degree.³¹ If midwives in clinical practice apply for recency of practice, they need to demonstrate at least one of the following requirements: (1) completion of a minimum of 450 hours of practice in the past 5 years; (2) completion of a program or assessment approved by NMBA; or (3) completion of supervised practice approved by NMBA.³²

3.2.4.2. The scope of practice of midwives

As the primary maternity care providers, midwives are responsible for identifying the situations in which women need medical attention during pregnancy, labor, birth, or

the postnatal period, which lasts 6 weeks after the birth of the baby.³³ They provide appropriate assessment and timely referral and access to higher-level services provided by medical practitioners. They can also participate in secondary and tertiary maternity care in cooperation with other health providers. They work with women to ensure wellness promotion for women, infants, families, and communities, and they provide care in any setting, including homes, the community, hospitals, or any other maternity service.³⁴ A very important task of midwives is health counseling and education. Midwives registered with NMBA have a limited right to prescribe within legislation.³³

3.2.5. The United States

The American infant mortality rate in 2005 was 6.9‰.¹⁸ Before the 1930s, most births were accompanied by midwives.¹⁵ However, after the medical profession gained prominence, midwives began to be marginalized.³⁵ The foundation of ACNM did not change the steady rise of physician-assisted birth, nor have midwives been treated as physician assistants till now. Certified nurse midwives (CNMs), certified midwives (CMs), and certified professional midwives (CPMs) are the three types of midwives in the United States, and they are governed by different institutions: CNMs and CMs are administrated by ACNM and CPMs by MANA and NACPMs.³⁶

3.2.5.1. The definition of midwives

According to ACNM,^{37,38} CNMs are educated in two disciplines: midwifery and nursing. After completing a midwifery educational program accredited by Accreditation Commission for Midwifery Education (ACME), they need to pass a national certification examination administered by American Midwifery Certification Board (AMCB) to receive the professional designation of CNM. A master's degree is the minimum requirement for AMCB certification examination.

CMs are educated in the discipline of midwifery. They earn graduate degrees, meet health and science education requirements, complete a midwifery educational program accredited by ACME, and pass the same national certification examination as CNMs to receive the professional designation of CMs.

CPMs are knowledgeable, skilled, professional independent midwifery practitioners who have met the standards for certification set by North American Registry of Midwives (NARMs). The certification requires a high school diploma or equivalent. The certifying organization is NARM.

3.2.5.2. The scope of practice of midwives

According to ACNM,^{37,38} the scope of practice of CNMs and CMs is the same, encompassing a full range of primary health care services for women from adolescence to beyond menopause. CNMs and CMs provide primary care, gynecological and family planning services, perinatal care, care of the normal newborn during the first 28 days of life, and treatment of male partners for sexually transmitted infections. They provide physical examinations and health consultations and education; prescribe medications, including controlled substances and contraceptive methods; and manage patients, order and interpret laboratory and diagnostic tests, and order the use of medical devices. They can provide services for women and families in ambulatory care clinics, private offices, community and public health systems, homes, hospitals, and birth centers.

CNMs have prescriptive authority in all US jurisdictions, while CMs do so in New York. Now, the majority of CNMs and CMs attend births in hospitals.

CPMs work with women to promote a healthy pregnancy and provide education to help them make informed decisions about their own care in homes, birth centers, and offices. They carefully monitor the progress of the pregnancy, labor, birth, and postpartum periods and recommend appropriate management if complications arise, collaborating with other health care providers when necessary.³⁹

CPMs do not have prescriptive authority. However, they may obtain and administer certain medications in some states. Now, the majority of CPMs attend out-of-hospital births.

3.3. The definition and scope of practice of midwives in China

Midwifery pertains to nursing in China and is regulated by the Nurse Ordinance.

3.3.1. The definition of midwives

The Nurse Ordinance,⁴⁰ issued in 2008 by the State Council of the People's Republic of China, and the ancillary regulations defining midwives' permission to practice stipulate that graduates of nursing are allowed to apply for midwifery practice after passing a nurse practice qualification test and receiving the maternal and newborn care technical examination certificate. However, there is no national standard for education and examination, which causes differences in competencies. As for education, most of the current serving midwives received a relatively low-level education, most

receiving a 3-year educational program after completing middle school without unified teaching materials.⁴¹

3.3.2. The scope of practice of midwives

National Health and Family Planning Commission of the People's Republic of China⁴² clarifies that the duty of midwives is to "(1) Work under the guidance of head nurses and physicians; be in charge of normal births; assist physicians during dystocia; be prepared for delivery; take care of the process; inform physicians of maternal complications and neonatal asphyxia while taking emergency measures. (2) Know the situation of mothers before and after delivery; strictly carry out aseptic operations; protect the perineum and maternal and child health; avoid mistakes. (3) Keep the delivery room clean; disinfect regularly. (4) Provide perinatal care, health education, and technical guidance. (5) Administer drugs and equipment in delivery rooms and baby rooms. (6) Be responsible for antenatal care, make house calls and postpartum follow-ups when necessary. (7) Guide training midwives and internships in delivery." However, midwives in China mainly work in the delivery room and take care of delivery nowadays. Preconception care and postpartum health care are insufficient. Some of the tasks of midwives are usually taken by physicians and nurses, which results in the absence of self-determined operations.⁹ The confusion of scope of

practice of midwives leads to an ambiguity in responsibilities and obligations, which influences the quality of services.

4. Discussion

Table 1 lists the similarities and differences in the definitions and scopes of practice of midwives among the five representative countries. We can see that most countries have adopted the definition and scope of practice of midwives recommended by ICM.

Although there are differences across nations in the definition of midwives, they all set standards for registration, midwifery education, and its acceptance standards. A bachelor degree, as WHO recommends, is the minimum requirement for registration except for CPMs in the United States. The scope of practice of CPMs is accordingly limited. Some countries, such as Finland and the United States, even require a master's degree. There are two approaches for midwifery training: nurses and graduates. For example, the United Kingdom sets standards for two kinds of education, and the examination for registration requires midwifery knowledge such as perinatal and sexual care. In China, midwives have diverse educational backgrounds due to a lack of licensing standards, most coming from training in technical secondary schools and junior colleges. Undergraduate education is necessary for better service meeting

Items \ Countries	Sweden	Finland	The United Kingdom	Australia	The United States
Definition					
Acceptance into education	√	√	√	√	√
Education	√	√	√	√	√
Registration	√	√	√	√	√
Scope of practice					
Autonomous environment	√	√	√	√	√
The objective of care	Male, female, children, teenagers, adults	Male, family, society	Female, family	Male, female, infant, family, community	Male, female, new born, family
The period of care	Life cycle	Pregnancy, childbirth, child years	Pregnancy, childbirth, postpartum recovery	Pregnancy, postpartum period lasts 6 weeks	Adolescent–menopause
Prescription right	√	√	√	√	√ (except for CPMs)
Health counselling	√	√	√	√	√
Others					
Professional institution	√	√	√	√	√

Table 1. Similarities and differences in the definition and scope of practice of midwives between the five representative countries.

Note: CPMs: certified professional midwives.

international standards. On the other hand, a national standard for education and examination should be established to ensure the quality of midwives. Moreover, the acceptance examination should focus more on midwifery knowledge because of the differences between midwives and nurses.⁴¹

As for the scope of practice of midwives, all countries provide for the scope of practice of midwives in the following respects: an autonomous environment, the object of care, the period of care involved, and emergency treatment. Most midwives have prescribing rights related to gynecology and obstetrics. Moreover, consultation is also an important task for midwives. All midwives except CPMs in the United States work not only in hospitals but also in community, home, and other maternity services for female, infant, family, and even male and teenaged patients, and provide sexual and reproductive health consultations from a life cycle perspective, which is quite different from the situation in China. Midwives in our country mainly work in hospitals and are in charge of providing care for mothers and infants during childbirth. Although some hospitals have a midwife clinic, midwives cannot fully perform their expected role. The limitations on emergency treatment and prescription rights also limit midwives in the performance of their duties. Healthy China 2030 recommends providing care during the whole process of birth, which relies on the performance of midwives' duties. More research concentrating on measures to develop the ability of midwives and promote maternal and infant health is needed.

We can also learn lessons from the midwifery developments and current situation of maternal and child health in different countries. For example, the Finnish government gives midwives a free hand in decisions and operation. On the other hand, midwives in the United States are considered physician assistants. A study²² of birth in Finland shows that different policies and status of midwives are responsible to some extent for the gaps

of maternal and child health between Finland and the United States. Moreover, the history and development of midwifery in the United Kingdom and Australia are similar in a certain period. However, the lack of an educational and regulatory basis for midwifery practice led to the decline of midwives' status so that midwifery is more like a category of nursing in Australia. Just as ICM recommends, education, legalization, and profession are three pillars for childbirth service. Legalization provides practice standards and defines and ensures the scope of practice, which guarantees the quality of care provided by midwives. Education standards described in the definition of midwives also equip midwives with midwifery competencies. All these are described in the definition and scope of practice of midwives. However, there is a large gap between China and these five countries in midwifery. The description of the definition and scope of practice of midwives is insufficiently clear, which is an impediment to the development of midwifery and performance of the respective duties.

5. Conclusions

A clear description of the definition and scope of practice of midwives contributes to well-developed midwifery. The definition of midwives should include registration, midwifery education, and its acceptance standards. The scope of practice of midwives should specify an autonomous environment, the object of care, the period of care involved, prescribing rights, emergency treatment, and health counseling, which promote rather than limit the development of midwifery. The next step will be to clarify the definition and scope of practice of midwives based on their current status, and a comprehensive midwifery policy is needed for midwives to fully perform their roles.

Conflict of Interest

There is no conflict of interest to be declared.

References

1. WHO. *The State of the World's Midwifery 2014: A Universal Pathway – a Woman's Right to Health*. http://www.unfpa.org/sites/default/files/pub-pdf/EN_SoWMY2014_complete.pdf. Accessed September 24, 2017.
2. United Nations Population Fund. *Overview of Midwives*. <http://www.unfpa.org/midwifery?page=4>. Accessed June 20, 2017.
3. Büscher A, Sivertsen B, White J. Nurses and midwives: a force for health: survey on the situation of nursing and midwifery in the Member States of the European Region of the World Health Organization, 2009. *Chemistry*. 2010;16:611-619.
4. National Bureau of Statistics of the People's Republic of China. *The Maternal Mortality Ratio and Newborn Mortality in 2014*. <http://data.stats.gov.cn/easyquery.htm?cn=C01&zb=A000I&sj=2014>. Accessed December 9, 2016 (in Chinese).
5. Lu H. The exploration of midwifery development in China. *Chin Nurs Manag*. 2017;1:10-12 (in Chinese).
6. Lu H, Hou R. Chinese midwifery workforce development and construction. *China Health Hum Res*. 2015;10:22-24 (in Chinese).

7. WHO. *Making Pregnancy Safer: The Critical Role of the Skilled Attendant: A Joint Statement by WHO ICM and FIGO*. http://www.who.int/maternal_child_adolescent/documents/9241591692/en/. Accessed December 12, 2017.
8. Li DD, Luo SS, An L. Study on the current situation of midwifery personnel in China. *Matern Child Health Care Chin*. 2014;7:993-996 (in Chinese).
9. Hou R, Lu H. Survey on the essential competencies for midwifery practice in Beijing midwives. *J Nurs Sci*. 2010;20:29-31 (in Chinese).
10. Zhang X, Lu H. Investigation and study on current situation and influencing factors of core midwifery competency in Beijing. *Matern Child Health Care China*. 2013;9:1462-1465 (in Chinese)..
11. Lu H, Hou R, Zhu X, Zhang X. Study on the core midwifery competencies and its influencing factors among midwives in Hu'nan Province. *J Nurs Admin*. 2012;3:187-189 (in Chinese).
12. Hou R, Yue JY, Lu JY, Lu H. Study on needs of midwifery legislation in China. *Chin Nurs Manag*. 2017;1:13-16.
13. Wagner M. Fish can't see water: the need to humanize birth. *Int J Gynaecol Obstet*. 2001;75(suppl 1):S25-S37.
14. ICM. *Global Standards for Midwifery Regulation*. <http://internationalmidwives.org/assets/uploads/documents/Global%20Standards%20Comptencies%20Tools/English/GLOBAL%20STANDARDS%20FOR%20MIDWIFERY%20REGULATION%20ENG.pdf>. Accessed May 1, 2017.
15. Rifkin D. Midwifery: an international perspective-the need for universal legal recognition. *Indiana J Global Legal Stud*. 1997;4:509-536.
16. Ying WH. Swedish child health. *Today Sci Tech*. 1981;9:25.
17. Wang YS. Foreign pediatric information. *J Clin Pediatr*. 1992;1:61-62.
18. Huang QH. The basic law of the British health system. *Res Rule Law*. 2012;8:46-59 (in Chinese).
19. The Swedish Association of Midwives. *The Swedish Association of Midwives*. <http://www.barnmorskeforbundet.se/english/>. Accessed December 9, 2016.
20. Chen Q. A review of the training of midwives in China and foreign countries. *China Higher Med Educ*. 2016;4:19-20 (in Chinese).
21. The National Board of Welfare. *Description of Competence for Registered Midwives*. <http://www.barnmorskeforbundet.se/wp-content/uploads/2014/03/Description-of-Competence-for-Registered-Midwives-Sweden-2006-Socialstyrelsen-Translated-by-The-Swedish-Association-of-Midwives.pdf>. Accessed December 9, 2016.
22. Callister LC, Lauri S, Vehvilainen-Julkunen K. A description of birth in Finland. *MCN Am J Matern Child Nurs*. 2000;25:146-150.
23. Federation of Finnish Midwives. <https://www.suomenkatiloliitto.fi/katilon-tyo>. Accessed December 9, 2016.
24. Jian YJ, Zhao P, Gan XX. Situation and thinking of construction and development of midwifery. *Chin J Nurs*. 2008;9:832-834 (in Chinese).
25. NMC. *Standards for Pre-Registration Midwifery Education*. <https://www.nmc.org.uk/globalassets/sitedocuments/standards/nmc-standards-for-pre-registration-midwifery-education.pdf>. Accessed December 9, 2016.
26. NMC. *Midwives Rules and Standards 2012*. <http://www.nipec.hscni.net/midwivesandmedicines/NMC-Midwives-rules-and-standards-2012.pdf>. Accessed December 9, 2016.
27. NMC. *When Do I Need to Revalidate?* <http://revalidation.nmc.org.uk/revalidation-date>. Accessed December 9, 2016.
28. NMC. *Becoming a Midwife*. <https://www.nmc.org.uk/education/becoming-a-nurse-or-midwife/becoming-a-midwife/>. Accessed December 9, 2016.
29. Sheng XM, Ma YL. Compare of Chinese and British vocational ability and education of midwives. *Health Vocational Educ*. 2016;9:4-6 (in Chinese).
30. Nursing and Midwifery Board of Australia. *Code of Professional Conduct for Midwives in Australia*. <http://www.nursingmidwiferyboard.gov.au/documents/default.aspx?record=WD17%2f23847&dbid=AP&checksum=BlvAWN0iQspBLSXIDBR1pQ%3d%3d>. Accessed December 12, 2016.
31. Australian Nursing and Midwifery Council. *Midwife Accreditation Standards 2014*. https://www.anmac.org.au/sites/default/files/documents/ANMAC_Midwife_Accreditation_Standards_2014.pdf. Accessed December 12, 2016.
32. Nursing and Midwifery Board of Australia. *Registration Standard: Recency of Practice*. <http://www.nursingmidwiferyboard.gov.au/Registration-Standards/Recency-of-practice.aspx>. Accessed December 12, 2016.
33. Australian College of Midwives. *National Midwifery Guidelines for Consultation and Referral-3rd Edition Issue 2*. <https://issuu.com/austcollegemidwives/docs/guidelines2013>. Accessed December 12, 2016.
34. Nursing and Midwifery Board of Australia. *National Competency Standards for the Midwife*. <http://www.nursingmidwiferyboard.gov.au/documents/default.aspx?record=WD10%2f1350&dbid=AP&checksum=Yp0233q3xmE5YVjiy%2fy0mA%3d%3d>. Accessed December 12, 2016.
35. Rushing B. Ideology in the Reemergence of North American Midwifery. *Work Occup*. 1993;20:46-67.

36. Zhang SQ, Li L, Ye WQ. A review of nurse midwives in the United States. *Chin J Nurs*. 2012;12:1140-1142 (in Chinese).
37. American College of Nurse-Midwives. *Comparison of Certified Nurse-Midwives, Certified Midwives, and Certified Professional Midwives*. <http://www.midwife.org/acnm/files/cclibraryfiles/filename/000000001385/cnm%20cm%20cpm%20comparisonchart%20082511.pdf>. Accessed November 19, 2017.
38. American College of Nurse-Midwives. *Definition of Midwifery and Scope of Practice of Certified Nurse-Midwives and Certified Midwives*. <http://www.midwife.org/ACNM/files/ACNMLibraryData/UPLOADFILENAME/000000000266/Definition%20of%20Midwifery%20and%20Scope%20of%20Practice%20of%20CNMs%20and%20CMs%20Dec%202011.pdf>. Accessed December 14, 2016.
39. North American Registry of Midwives. *What is a CAP*. <http://narm.org/>. Accessed December 12, 2016.
40. The Central People's Government of the People's Republic of China. *Nurse ordinance*. http://www.gov.cn/zwgk/2008-02/04/content_882178.htm. Accessed June 23, 2017.
41. Pang RY. Chinese midwifery situation and development. *Chin J Nurs Educ*. 2010;7:293-295 (in Chinese).
42. National Health and Family Planning Commission of the People's Republic of China. *National Work System of Hospital and the Duties of Personnel*. <http://www.moh.gov.cn/>. Accessed June 30, 2017 (in Chinese).

How to cite this article: Li J, Lu H, Hou R. A review of the definition and scope of practice of midwives in five representative countries. *Front Nurs*. 2018; 3: 165-174. <https://doi.org/10.1515/fon-2018-0022>.