Preparing an educated nurse: past and future trends within the UK and mainland China: a case study

Rongrong Zhang, Judith Lathlean

Abstract

Nursing education has experienced considerable development related to societal, health care, and technological advances, alongside economic growth. In the UK, there is a shift to an all-graduate discipline and a need to look at the balance of the health care workforce. In mainland China, there is a goal to educate nurses who are fit for the changing healthcare system, during a period of health care reform which attempts to improve primary health care delivery in rural and urban areas.

This paper presents a cross-national comparative research project, undertaken for doctoral studies, which aimed to explore past changes and future trends in nursing in England and mainland China, and the impact that reform has had on the way in which nurses are currently and prospectively educated in the two countries.

A case study design was used in two University settings providing nurse education, one in UK (specifically England) and one in mainland China. Participants were nurse teachers, in adult and mental health nursing in the UK, and in-depth interview data were collected from 11 in the UK site and 10 in the Chinese site. Thematic analysis was used to analyse the data. These data are set within the historical and contemporary contexts, through a critical analysis of the literature.

Findings indicated that the trajectories of the development of nurse education in the two countries are varied, but with interesting similarities and differences. For example, the professionalisation of nursing in the two countries has followed a pathway that is comparable in some senses but not others. This is related to such issues at the inter-relationship of medicine and nursing and views about the status of nurses. Main conclusions of this study include the increasing emphasis on community care and the linked need for further curriculum development to prepare nurses in both countries for such changes.

Introduction

Change and reform of nursing and nursing education globally is closely linked to the provision of health services, the development of the economy, the expectations of society and the guidance from policy. This study focuses on the development of pre-registration nurse education within such a context in a western country, UK, and an eastern country, mainland China.

In the UK, the proposition that (general) nurses should be trained was not considered a necessity until the middle of the 19th century (Jolley 1987). The idea came from the demand for proper care during a time of war (Hallett 2010). On the other hand, nursing in mainland China has different origins, though interestingly intertwined with the west. There were no identities or roles for nurses per se in culture-rooted Traditional Chinese Medicine (TCM). However in mainland China, nursing and nurse education were imported by American missionaries in the late 19th century. Thus, modern Chinese nursing and nurse education have been based on a western concept.

Since the late 1980s, nurse training in the two countries has moved towards complete inclusion within higher education. In the UK, Project 2000, a key initiative, was launched in the late 1980s (UKCC 1986; Bentley 1996; Macleod Clark et al. 1996 and Longley et al. 2007). This signalled the transference of nurse education from a hospital-based training to a university-based education, which was achieved by 1996 (National Audit Office 2001). Since 2011, in preparation for a 2013 deadline, curricula have been implemented to create an all graduate entry to the profession. These changes have been characterised by a relatively gradual evolution over a period of about 25 years, with many reports and government support.

On the other hand, the progress of Chinese nursing education has been

Author details
Rongrong Zhang
Faculty of International Medical Technology, University of ShanDa, ShangHai, P R China
Corresponding author:
Professor Judith Lathlean
Professor of Health Research, Faculty of Health Sciences, Building 67, E4007
University of Southampton, Highfield, Southampton, UK, SO17 1BJ
Tel: 0044 23 8059 8234
email: J.Lathlean@soton.ac.uk

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comparatively tortuous and complicated. Nurse higher education emerged in the 1980s, though the traditional apprenticeship model continued to be the main route for the majority of those in training (Xu et al 2000). The situation started to change by 1999 when the University Enrolment Expansion Scheme was promoted and implemented by the government (Chen 2003). Because of this scheme, the location of nursing training within higher education institutions developed more rapidly from 2000 onwards (Ministry of Health 2007b, 2010, Ministry of Health and Ministry of Education 2004). However, the quality of the nurse higher education programmes is under consideration and, whilst the vocational training programmes for nurses have reduced in number, they still remain as one route to become a nurse (Ministry of Health 2005; Jiang 2007).

Contemporarily, healthcare in both countries is facing similar challenges, such as high cost, an aging population and increasing numbers of people with long-term conditions. However, there are important differences in the changing role of nurses in both countries and this in turn impacts upon the training and education of nurses. For example, in the UK, there are key considerations to take into account such as the increased need to prepare (general) nurses to work in community settings with patients who are often more ill than hitherto (The situation is a little different with mental health nurses as traditionally this has been community-based). In mainland China, with no comparable state provided health service and large rural geographical areas, the imperative is centred on rebuilding the three-tier healthcare system with a frontline healthcare service which can provide healthcare to every resident no matter where he/she lives and no matter whether he/she is rich or poor.

Research aims

The research had two aims. The first was to explore the retrospective changes and reforms in nursing and nurse education in the UK and mainland China. The second was to consider the impact of these reforms and contextual aspects in order to draw conclusions as to the developments required as a result of the changing needs in nursing and nurse education in the UK and mainland China.

Research design and methods

A cross-culture qualitative case study was undertaken. One nursing school in England and one in mainland China were chosen as the study settings. Nurse educators, mainly general branch but also mental health in the English setting, who were involved in pre-registration programme, notably lecturers and course leaders, were the participants in this research. A purposive sampling strategy was used to select participants which would shed most light on the research questions and therefore provide the most benefit to this study. In-depth data were collected by digitally-recorded interviews from 11 people in the UK site (in English) and 10 in the Chinese site (in Mandarin Chinese). The UK interviews were transcribed verbatim and the Chinese interviews were transcribed and translated. Thematic analysis was used to analyse the data. These data were then set within the historical and contemporary contexts, through a critical analysis of the literature.

Ethical considerations

Ethical approval was gained from the two host nursing schools, participants were assured that engagement with the study was voluntary and they were free to withdraw at any time. Consent forms were signed before the interviews were undertaken. Raw data were kept secure, and names/locations were rendered anonymous. All requirements of the Data Protection Act were followed and data will be retained for the ten years following the end of the project in line with the University regulations.

Findings

The key findings related first to the way in which nursing education developed in the context of higher education and second, to the impact of policy and societal factors in both countries. Also important was, third, the relationship between the professions of medicine and nursing. A fourth factor was the shifting nature of nursing, with greater emphasis in both countries on care in the community. The verbatim quotes are identified with E for English participants and C for Chinese.

The process of nurse higher education development

An aspect that dominated reform of nurse education centred on the move in both countries from an apprenticeship model of training and its association with 'learning while working' to one of education within a university context. The move into higher education institutions in the two countries followed two different trajectories. In the UK, it has been more an evolutionary process up to the implementation of recent plans to create an all graduate profession. Diagram 1 illustrates the evolution of nurse higher education in the UK.

On the other hand, in mainland China, it has been a more revolutionary process related to political and social influences. Nursing training in the context of higher education started early - in the 1920s

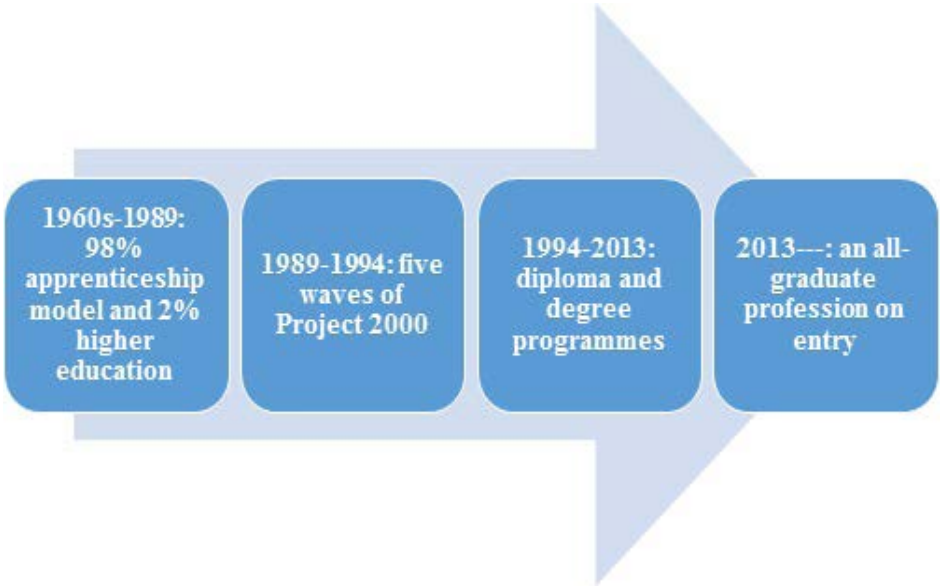

Diagram 1. The process of nurse higher education development in the UK

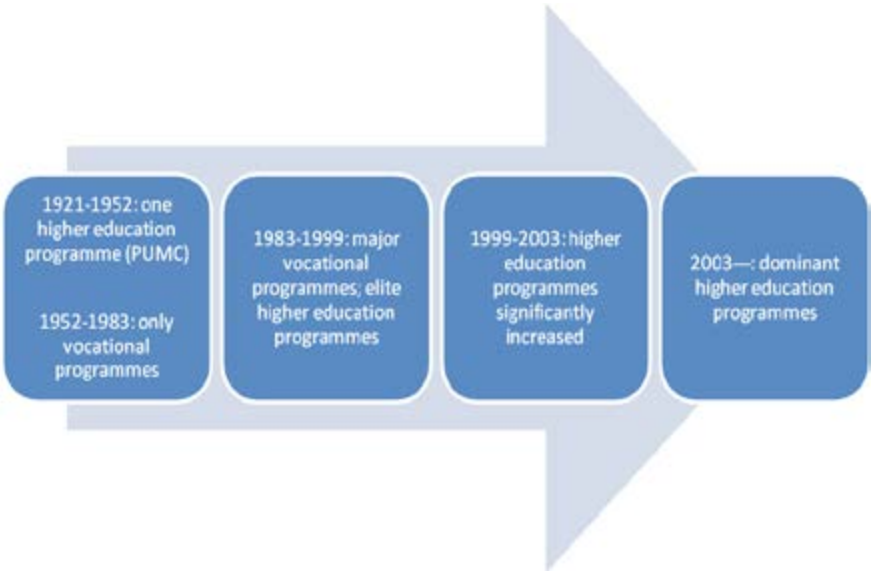

Diagram 2. The process of nurse higher education development in main land China

- in mainland China. However, its development was halted or constrained by the three decades' cessation period, along with negative attitudes towards nursing as a discipline in its own right. Nevertheless, nurse higher education in mainland China has entered a significant developing period since 1999 due to the University Enrolment Expansion Scheme. Diagram 2 shows the development of nurse higher education in mainland China.

The impact of history, society and policy on nurse higher education

Moving nursing training into the higher education sector in both countries was proposed and began to be implemented in the 1980s. However, the findings revealed that the basis of the moves in the two countries was different. Such differences could be linked with the historical development of nurse higher education in the two countries. In the UK, prior to the planning relating to Project 2000, a relatively small group of degree level nurses were educated in universities. Such nurses were, however, well prepared for the programmes to be offered in universities, and a reasonably high proportion of the educators in university nursing departments were from this group of nursing graduates.

'You must know that at that time [ie: the apprentice model period], most of the nursing training was in the hospital. But about 10% of the nurse training from 1970s onwards was in higher education. Many of them became educators, like me.' (E 3)

Moreover, as stated by one respondent, the move to prepare all nurses within higher education institutions was considered 'inevitable'. Whilst this was not a shared view, it gained momentum.

'My colleagues and I, in the late 1980s, started to argue, through our writing and speech, that nursing deserved higher education, deserved to move towards all graduate status. Then in the 1990s in this university, we started to recruit nursing students.' (E2)

On the other hand, in mainland China, the history of nursing within the higher education sector has been relatively short. Although nurse higher education emerged early in 1920 in Peking Union Medical College (PUMC), the programme did not spread beyond this university. Indeed PUMC was the only university offering a nurse higher education programme until the 1980s. Furthermore, this programme ceased in 1952 and this left the vocational programme as the only preparation programme running in the country. This resulted from a three decades' cessation period of nurse higher education in mainland China before the planning of the shift of nurse training into universities. Chinese respondents talked about the difficulties of that transition. At the beginning, the plan was not welcomed or supported in society. Citizens, healthcare professionals, such as physicians, and even nurses themselves, did not see the necessity for this movement.

'When Professor JuYing Lin first proposed that nursing should be taught in higher education institutions in 1970s, most people, including policy makers, doctors, and nurses themselves, did not understand or support her.' (C 1)

Furthermore, policy initiatives and dictates have clearly impacted upon the shaping of nurse education in both the UK and mainland China. With respect to the UK, Project 2000 recommended a change from an apprenticeship model to university-based education. Furthermore, several years later in 2009, the plan to move nursing into an all degree profession was confirmed by the Nursing and Midwifery Council (NMC) and is currently ongoing (NMC, 2009). These plans were confirmed and implemented by the government with an aim to develop nursing profession.

On the other hand, in mainland China, the main political impetus of the movement came from a symposium held jointly by the Ministry of Education and the Ministry of Health in 1983. The programmes of educating nurses in universities were designed and implemented as a result of this meeting. The development of nurse higher education in the country was relatively slow in the 1990s, a period which resembled the higher education preparation stage before Project 2000 in England. Nonetheless, the Communist Party decided to put the University Expansion Scheme into action in the late 1990s, and since then nurse higher education programmes have sprung up over the country. One Chinese respondent estimated that the number of nursing students doubled within three years in one particular nursing school. Most of the Chinese respondents indicated that such a scheme was positive for nurse higher education. However, one Chinese interviewee pointed out that the nursing schools expanded too quickly and, as a result, the quality of the programme was questionable. A concern centred on whether the teachers, simulation rooms, libraries and placements were well prepared for the students.

'Take my school as an example; there were about 200 students in 2002 while more than 400 students in 2005. This speed is incredible. Do we control the recruitment level? Do we manage to employ sufficient teachers? Do we organise the placements? I doubt.' (C 2)

It can be concluded that the basis for the nurse higher education movement in the two countries was different. In the UK, it had been built on a bedrock of existing undergraduate programmes and planning over a period of time. Conversely, the move to higher education has been fragmented and slower in mainland China, influenced by political concerns and the general perception of the role of nursing in society.

The relationship between medicine and nursing

'There is a traditional proverb which refers to 'doctors' as the 'mouths' and nurses as the 'legs'. (C 6)

This implies that the relationship between physicians and nurses is one in which physicians are the brains which are giving orders whereas nurses are the limbs that are carrying out the orders.

Nursing was sacrificed in the early years of the new country whereas medicine was on the top priority list to develop in terms of both practice and education.

'In the early days of our country [the 1950s-1970s], the government decided to rebuild medical higher education programmes, whereas [they] only provide vocational training to nurses'. (C 4)

Moreover, when nurse higher education programmes were finally being implemented in universities, physicians were the key figures who formed the syllabus, who designed the nursing curriculum and who delivered the courses. It is not surprising that one participant described early well-educated nurses as 'mini-doctors'.

'At the beginning of nurse higher education, we very much relied on medicine. Nursing students used the same textbook [as] medical students, they were taught together with medical students. At the end, we got a question, what kind of nurses we are producing, mini-doctors? This is not right.' (C 3)

However, when these knowledgeable 'mini-doctors' started to work in hospitals, they were still supposed to carry out traditional nursing duties. This contradiction resulted in the loss of educated nurses.

'When [higher educated nurses] started their job in hospitals, most of them carried out the routine of traditional nurses, for instance, making beds, handing out drugs etc. They became dissatisfied and disappointed. What they did was nothing about what they learned. Many of them left nursing.' (C 2)

'Many of the early high educated nurses left nursing because they could not find the value, satisfaction or respect from their job. It was such a shame.' (C 7)

Furthermore, during a long period, nursing was an attached discipline to medicine. This awkward situation put nursing into a very difficult circumstance in terms of being an independent discipline and profession on its own. Nevertheless, an announcement was made that, from 2011, nursing was to become a first place subject in the Academic Degrees Committee. This should benefit the development of Chinese nursing in the future.

The English setting findings showed that nurses traditionally were seen as doctors' hand maidens who just did what the doctors told them to do. However, since nurses have been trained in higher education institutions, the relationship was believed to have changed and nurses were becoming more the partners of other health professionals. It can be concluded that nursing in both countries was of low status in early times with it being a subordinate profession to medicine. However, it has pursued its own professional status, rights and powers by such means as education and regulation. Higher education was evidently a positive factor. Nursing in the UK has become more of an independent and autonomous profession. However, the dominance of medicine in nurse higher education remains in mainland China, and therefore, the independence of Chinese nursing is constrained.

Preparing nurses for primary care settings

There is a trend of shifting more care from hospitals to communities globally (WHO 2008) including in the UK and mainland China. The reasons for this are similar in both countries. First, the pattern of disease in both countries is changing from an emphasis on acute and infectious diseases (especially in China) to chronic long term prognoses.

'Definitely we are moving care from acute wards to communities. We want acute care service but also want the care for people with long term conditions to be routed in primary care or to be routed around patients' living areas.' (E 6)

'The diseases that patients suffer are very different from those decades ago. Contemporary, patients suffer from obesity, high blood pressure, diabetes, heart disease, stroke and cancer etc. What they need is continuing monitoring, care and management. They need to be in the community.' (C 8)

Secondly, besides the ideological reasons for a shift of focus, the movement towards primary care in both countries has a financial aspect.

'Although the government has to put a lot of investment in this stage to shifting more care into community, in the longer term, the health cost in the future will be reduced. You know how expensive the care in the hospitals is. When we can manage care in the community centres, when we teach patients manage care at their homes, the cost will be less.' (E 5)

'The health resources are extremely wasted. Patients come to big hospitals even when they are suffering from a cough or fever. These should be solved in community centres.' (C 6)

'We have a patient who has been staying in the ward more than 8 years after the surgery. This post-surgery care should be managed in community hospitals. We cannot afford it.' (C 8)

Thirdly, both the English setting and Chinese findings indicated that the two countries were both facing the challenges of an aging population.

'*Aging population is always an issue. Gerontology is an important course… Elderly care should be based in the community. We cannot handle it in hospitals.' (E 6)*

'China is a big country and the population is aging. The elderly people need nurses coming to their homes to take care of them.' (C 9)

Furthermore, the Chinese findings pointed out that the mainland of China was a country with a large territory, though hospitals were centralised in cities. Due to the market-driven economy and urbanization process in mainland China in the 20th century, the gap between urban and rural areas concerning such factors as income, access to education and health services, has widened. The three-tier healthcare system has deteriorated badly and health services in low-income areas, mostly in rural areas, are poorly developed. Chinese respondents claimed that the first and second tiers which offered primary care should be rebuilt, in order to cover the healthcare service over the country, as well as to provide accessible and affordable care for all.

'Patients from remote rural areas have to travel a long way to reach a hospital. This is unfair for them. Community centres must be rebuilt in the country. Then people, wherever they live, always can get access to healthcare service without difficulty.' (C 6)

'We all know that hospital care is very expensive. Some patients cannot afford it. But it is really necessary? No. Community care is much cheaper, no expensive medications and no expensive MRI [Magnetic resonance imaging] scan.' (C 8)

However, the current community health care in mainland China was considered to be a cause for concern.

'Considering the situation of community care in the past and now, most patients would rather go to hospitals even though the price there is higher.' (C 9)

'There is lots of work to do. The quality of community care has to be increased. First of all, the health staff in community centres must be properly trained.' (C 7)

Therefore, training proper healthcare professionals to work in primary care settings becomes an essential task in mainland China. Again the priority has been given to the medical programme.

'I know there are several projects launched to train community doctors. Some doctors in this hospital (located in ShangHai) joined. However, I have not heard of such a project to prepare community nurses.' (C 6)

On the other hand, nurses in the UK were talked of as 'leading the way in moving healthcare into primary care settings'. It was suggested that nurses should be able to work equally well in acute hospitals and the community in the future. Nurses who work in the community were considered to need high-level thinking and decision-making competences.

'My personal belief is that nursing will play a significant role in the configuration of healthcare service in the future. Nurses will help the government to move the agenda of addressing great emphasis on primary care.' (E 2)

'They (nurses) are going to need to work flexibly. Some of them might work in the urgent care centres in the main hospitals, many of them will work in the community. Thus, the education should prepare the nurses who can flexibly work in secondary and primary care settings at the point of graduation. (E 2)

'You are going to have to have highly skilled expert nurses in the community who are going to not only administer day to day treatment but also recognise deterioration, intervention, be able to network with other services.' (E 9)

Primary care in the UK has a long history with district nurses playing an important role in the workforce, and having their own post-registration preparation pathway. The contemporary pre-registration nursing programmes for general nursing in the UK now focus more on preparing nurses with a wider range of skills/knowledge to be able to work flexibly in both acute and primary care settings, although there is still no direct entry to a community nursing qualification. On the other hand, in mainland China, the history of community nursing in the country has been relatively short. In addition, the three-tier referring healthcare system ceased to exist. This makes the plan to shift more healthcare into community settings in mainland China difficult and complicated.

Discussion

The implications of the findings of this research can be grouped into three main aspects of change - the provision of health care, nursing itself, and nurse education.

The provision of health care

Affordable and accessible healthcare is an important policy expectation for both countries. Historically both countries have focused on developments within acute care, somewhat at the expense of primary care. In mainland China this tends to correlate with a greater emphasis on urban rather than rural care (Ministry of Health 2007a). In the UK this correlation is not so clear cut, with less disparity between cities and rural communities though inequity of provision has been a feature in some parts of the country.

The expansion of community health services appears easier to achieve within the UK as there is an established framework of primary healthcare roles, including General Practitioners (GPs), practice nurses, district nurses, health visitors and allied health professionals. This is not the case in mainland China and presents challenges, particularly in the rural areas. It is important to recognise the issue of scale in China. Indeed, what works on a national level in England could be described as a useful 'pilot' for China.

With the shifting focus to primary healthcare, the planning of the future healthcare workforce is also changing. The UK has operated within a market based economy for longer than mainland China. Therefore the need to be competitive has influenced policy developments. China is now moving towards a market based economy and is emerging as a serious global competitor. Therefore, the drive for competitiveness is now prevalent in both countries and there is a heightened awareness of factors that promote a healthy current and future workforce. In turn this is influencing the development of health policies. In terms of workforce planning, in the UK, the government has a strategy for providing and preparing the future workforce which includes informing the nursing departments in universities of the number of student nurses they should recruit and educate each year.

Within this research, nurse educators anticipated a decreasing number of registered nurses alongside an increasing number of support workers in the UK. Also

it was suggested that nurse graduates would need to move more quickly than previously to work in community settings. However, there is concern as to whether the quality of healthcare can be guaranteed. On the other hand, there has been no comparable planning strategy regarding student recruitment in mainland China. Since the University Expansion Scheme was implemented in the late 1990s (Ministry of Health 2009), the number of graduates of all subjects and disciplines has significantly increased. One of the consequences is that graduates have found it difficult to get appropriate jobs. Although nursing in mainland China is still in shortage and nurse graduates, unlike other graduates, do not have the same pressure to find a position, the lack of an organised recruitment planning strategy could cause the same problem for nursing students in the future.

Changes within family life impact on the healthcare in both countries. Over time in the UK there has been the breakdown of the traditional family network of different generations living in close proximity. Now families are more dispersed and this has resulted in less support for caring responsibilities being available within the family network. As a result those needing care or their families tend to look more to the state and voluntary sector for assistance. In mainland China the longer term effects of the 'One Child' policy are beginning to emerge, in that there is an absence of a sibling network to collectively provide care. This is similar in the UK in that the proportion of younger people available and prepared to look after the elderly is decreasing. In each country, the situations described are compounded by a growing proportion of elderly citizens who are living into increasing old age with complex chronic conditions and degrees of frailty. Yet health care policies and the desires of older people mean that many wish to stay in the community as long as possible.

Nursing

The pattern and pace of developments within nursing is different between the two countries. In the UK, the move to an all graduate profession has evolved over time, with the most significant development occurring within the late 1980s, when nurse preparation moved to the University setting. The journey is almost complete in that within a few years it will not be possible to register as a nurse without an approved degree. In mainland China it remains possible to take a nurse registration exam whilst holding a diploma qualification and whilst there has been an increase in nurses who are prepared within a University setting, this is not universally the case.

In both countries developments within nursing are closely linked to wider economic and social factors. In the UK this is closely related to the structure and design of the health care system (the National Health Service) and the fact that it is financed via the public purse, primarily through taxation. This means that there is a limited sum of money to be spent on health care. The findings indicated that respondents identified the squeeze on resources as influencing the role of the nurse in terms of assuming responsibilities that were once those of the doctor. Interestingly, in the UK this model of increased autonomy for nurses has been more widely applied in the community and primary care setting than the acute setting. This is the reverse of what is happening in mainland China, where currently nursing in rural communities is associated with diplomate vocational preparation whilst graduate prepared nurses are identified as being required in the acute hospitals. From the 1950s through to the 1970s in mainland China, the rise in the number of nurses graduating with a degree and the associated development for the profession was not necessarily the dominant desired policy outcome. The over-riding outcome was to benefit the GDP development as part of the Country's shift towards a more market based competitive economy (Zou 2009). The growth in nursing graduates contributed towards the overall increase. It is important to acknowledge this point in relation to the description in the findings of nurses who felt disenchanted when qualified, as the work they were undertaking was described as low level and did not reflect the higher knowledge requirements they had successfully attained to complete their university programmes.

Nurse education

In the UK and mainland China, nurse educationalists have been required to work within a climate of enormous change. In the UK the evolutionary approach underpinning the policy making allowed for change to be planned for over a longer period of time, with some of the unintended consequences being identified in advance of the changes. This allowed for some preparation, both in the clinical learning environment and within the university environment. Despite the evolutionary approach, the preparation took longer than anticipated and not all unintended consequences were identified. Also, there remains uncertainty around how future generations of nurse educationalists will be prepared and how the emergent care settings within the community will provide appropriately qualified practitioners to act as expert role models and supervisors of students when they are themselves acquiring new skills.

These challenges for the future within the UK are not dissimilar to those that their Chinese counterparts have to confront. The key differences for Chinese nurse educators is that the professional preparation of nurses in China is not yet predicated only on a degree programme delivered in a University setting. Given the implications in term of scale and infrastructure requirements that are associated with the size and political history of the country, this is unsurprising.

The common theme is that nurse educators in the UK and mainland China have found themselves to a lesser or greater extent, grappling with the complexity of delivering new nurse preparatory programmes under time pressure and in difficult circumstances. These situations have been created as a result of wider policies, the stimulus for which was not necessarily driven by an over-riding priority that focused on the development of nursing. Therefore some of the changes, whilst positive, have happened in spite of and not because of the nurse leaders within each country successfully winning important arguments.

The two countries' histories of the development of nursing and nurse education share a common early western influence and increasingly the global drivers for health care share common goals. Whilst, so far, the journey of nursing development in each country may have taken different routes and occurred at a different pace, given the similarities that have emerged, the next stage in the development may be better

served by greater collaboration between the two countries. This requires a collaboration that is distinguished by a reflexive approach underpinned by mutual learning from each other.

Conclusion

This comparative study has provided a unique in-depth exploration of the major similarities and differences between nursing and the education of nurses in the UK and Mainland China, and the important factors that impinge on this, by focusing on two settings as examples. Nursing and in turn nurse education in the UK and mainland China have experienced both evolutionary and revolutionary change and development. Nursing as a subject, as well as a profession, is facing similar challenges in the contemporary world in the two countries. Further research could be undertaken on how elderly care could be better delivered in the community and how gerontology could be better taught in nursing programmes, how to empower Chinese nurses and the position of nurses in a healthcare team.

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