Contextual Factors for Establishing Nursing Regulation in Iran: A Qualitative Content Analysis

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ABSTRACT

Background: Professional regulation is one of the strategies of the governments which protect the public’s right. Nursing practice is not an exception; hence, it is regulated to protect the public against nursing services' adverse effects. Although modern nursing in Iran started from 100 years ago, documents show that there was no regulation mechanism for nursing in Iran till 2016. Hence, this study was conducted to illuminate the contextual factors affecting the nursing regulation process in Iran.

Methods: To explore the contextual elements of late establishment of nursing registration as an important part of nursing regulation, we applied directed qualitative content analysis. For this purpose, all the historical events and related materials including articles published in scientific journals, gray literature, statements, news articles, and interviews in the period of 2006-2016 were reviewed and analyzed by expert panel and categorized in predetermined groups.

Results: Pooled analysis data showed four contributing elements that affected the emerging nursing regulation in Iran. These elements include 1) cultural determinants, 2) structural determinants, 3) situational determinants, and 4) international or exogenous determinants.

Conclusion: Nursing regulation is an important health policy issue in Iran which needs to be facilitated by contextual factors. These factors are complicated and country-specific. Political willingness should be accompanied by nursing association willingness to establish and improve nursing regulation. Other researches are recommended to explore actors and process and content of nursing regulation policy in Iran.

KEYWORDS: Iran, Nursing, Qualitative research, Regulation

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**INTRODUCTION**

Nursing is regulated around the globe, primarily because it directly affects the public health. Regulation and the regulatory authorities must work to protect public safety. The regulatory arena is an important (but often overlooked) area of policy that significantly affects the nursing practice.

Since the regulatory system for the nursing profession is a health policy issue, policy makers, government funders, and healthcare teams are increasingly turning toward the nursing and midwifery workforce. Nursing regulation is a complex area in the healthcare system that requires a comprehensive approach and the broad participation of its stakeholders. Politicians, doctors, lawyers, teachers, and civil servants have all had (and in many instances, still do have) a significant influence on the policies related to nursing and nursing regulation. The core functions of a regulatory authority are issuing licenses to qualified individuals to practice the profession and requiring periodic renewal, establishing standards for education, establishing standards of practice including the codes of conduct and/or ethics, establishing and articulating the scope of practice, managing the complaints and maintaining the public register.

The purpose of a professional registration and licensure is to protect the public from harm by setting minimal qualifications and competencies for safe entry-level practitioners. Nursing is regulated because it is one of the health professions that pose a risk the public if practiced by someone who is unprepared and/or incompetent.

The healthcare system in Iran has witnessed profound changes in the last few decades. Despite such progress, the system currently faces many challenges in one of the important subsystems—nursing. Presently, there are 181 nursing schools around the country and about 8,000 nurses annually graduate with BSc, MSc, and PHD degrees. In 2008, there were 90,026 nurses working in Iranian health system. Of them 54,026 nurses are working in governmental hospitals, about 12,000 nurses in military hospitals, 12,000 nurses in Social Security Hospitals, 6000 in private hospitals, and about 6000 nurses in pre-hospital emergency medical services (this statistic has increased during the past 8 years, but there were no available published or formal document). In Iran, nurses are faced with many problems in clinical care and other professional issues such as nursing shortages, job dissatisfaction, poor social position of nurses, gaps between theory and practice, nursing error, and the lack of community-based nursing care. Although modern nursing in Iran started from 100 years ago and the history of nursing licensure in the world has exceeded 100 years, documents show that there is still no regulation council for nursing in Iran. Despite the lack of data as to the incidence of nursing practice errors and the fact that error in the health care is a significant problem, there are still nursing practice errors in Iranian hospitals. The need for nursing regulations in Iran was felt in 1968 and a draft was prepared by the nursing division, but it did not receive the support of the legislative authorities.

In Iran, the Deputy for Education (via the Nursing Board) and the Deputy of the Curative Affairs of the Ministry of Health and Medical Education are responsible for regulating the nursing education and the environment of practice. There was, however, no system for the registration of the nurses, which is the foremost step of nursing regulation.

In April 2016, the MoHME approved the legislation for nursing registration; accordingly, all nurses in country should be registered by the Center for Nursing Registration within the MoHME in a period of three years. It was an auspicious event and significant action on the way of the nursing regulation. However, considering a century after establishing modern nursing in Iran, the question is why the registration system (as an important part of professional regulation) is introduced at present? And what is the reason(s) of prolongation of the process of
nursing registration system in Iran despite other pioneer countries like UK.\textsuperscript{15}

As the systems of professional regulation are influenced and shaped by the legislative, political, environmental, social, and professional context in which they are developed,\textsuperscript{16} many issues and trends, such as market forces, cultural influences, technology, nursing competencies, communication, and education, affect the regulatory practice.\textsuperscript{17} Therefore, this study was conducted to determine the contextual factors that facilitated the establishment of nursing regulation in Iran.

\section*{Materials and Methods}

To explore the contextual elements of late establishment of nursing registration as an important part of nursing regulation, we applied directed qualitative content analysis. This method helps the researchers to reveal the hidden agenda behind the long term process of nursing registration establishment. In order to analyze the data, we used related research findings as guidance for primary codes. The subsequent codes and categories were extracted and formed based on constant comparative method. A wide range of materials consisting of scientific articles, proxy material, and grey literature including laws and regulations, socio-economic cultural events, national or international news, international health agencies’ resolutions as well as news articles and interviews published in official Iranian websites for finding factors facilitating the regulation establishment were analyzed. We used the Leichter model, which states the context in which policy forms contains situational, structural, cultural, and international or exogenous factors.\textsuperscript{18}

In this study, we used keywords including “nursing regulation”, “nursing registration”, “public protection”, “context”, and “Iran”, and their Farsi equivalents in search engines such as Ovid, PUBMED, Science Direct, CINHAL, ProQuest, Scopus, IranDoc, and Magiran from 2006 to 2016. We excluded all articles which were not related to Iran. Search results are briefed and displayed in Figure 1.

According to our search strategy, 39 materials were read carefully sentence by sentence to find the influencing factors for nursing regulation and registration.

The trustworthiness of our study

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{search_strategy_diagram.png}
\caption{Flow diagram of the search strategy}
\end{figure}
was evaluated using the four criteria recommended by Schwandt et al.: 19 creditability, conformability, transferability, and dependency. Credibility was guaranteed by prolonged engagement in the subject matter. Simultaneously, peer checks and expert checks were done in order to reach maximum credibility. Under an expert panel consisting of three faculty members and five nursing managers with at least 10 years of work experience, all the findings were evaluated according to their effects on the establishment of the nursing registration system, and according to the expert agreement, some materials were identified as unrelated and excluded; also, some factors were added to the findings. Peer check is also employed to assess the resulting categories and approve them after making the required changes.

Conformability of the data was accomplished by the lead researcher [H., A.] in a study conducted thorough reviews to gather ideas and concepts from other researchers and maintained the relevant study documents. Transferability of the data was provided by offering a comprehensive description of the subject, participants, data gathering, and data analysis. Dependency was assured through the current manuscript, which offers detailed information for other researchers to replicate and extend the study.

This study was approved by the ethics committee of Shiraz University of Medical Sciences with the approval code of IR.SUMS.REC.1396.S488. From ethical point of view, the study objectives were explained to all experts in the panel; then, the oral consent was obtained from them. The panelists were assured that all information was kept confidential.

**Results**

In the first step, 218 documents were found and reviewed primarily. Of them, 39 documents were relevant to our keywords. Through content analysis approach, four main categories were extracted from our data, including 1) cultural context, 2) structural context, 3) situational context, and 4) exogenous or international context (Table 1).

### 1) Cultural Context:

Cultural factors influence economic behavior, political participation, social solidarity, and value formation and evolution, which are closely linked to how and why public policies are developed in different ways in different countries. 20 We found following factors in this category:

#### 1-1) Role of Government:

In Iran, government has historically played the main administrative role in the country. This role in the health system consists of providing health services by owning the majority of hospitals and all the public health centers, and providing education to the majority of healthcare professionals. In addition to these executive roles, the MoHME is responsible for policymaking, and supervising health services and healthcare providers. In recent years, Iranian Nursing Organization had been suggested to establish

| Categories | Cultural factors | Structural factors | Situational factors | International or Exogenous factors |
|------------|------------------|--------------------|--------------------|----------------------------------|
| Sub categories | Nurses as value based profession | Expanion of nursing education | Commitment of new Government to health | Internationa trends of nursing regulation |
| | Role of government | Involvement of nurses in health policy | Health reform plan | Globalization |
| | | Incomplete regulation | Community-distressing malpractice | Membership in ICN |
| | | Nursing shortage | General Health Policy | Nursing migration |
| | | Establishment of Nursing Organization | National visionary statement | |

*Table 1: Contextual factors facilitating nursing regulation in Iran*
a self-regulation model, it but was not successful and finally in 2015, the MoHME approved an action plan which stated that the nursing registration system would start in 2016 and the approved model was a state regulation model.

1-2) Public recognition of nursing as a valuable and religious-based profession:

In recent years, the community has paid more attention to nurses because of various reasons including the attention of Iranian leaders paid to the value of nursing. For example, the supreme leader of Iran stated that the nurses were the angels of mercy for patients when there is nobody beside him and the role of a skilled nurse in the treatment and recovery of a patient was equivalent to a physician.21 Each year, on National Nurses Day, which is on the occasion of a religious event, the media covers nursing matters and usually high level officials (the President or the first vice-president of the country) attend nursing ceremonies. These factors have influenced the public to understand its value and support nursing as a valuable profession. On the other hand, this causes an increase in expectations of the public to receive high quality and safe services. This support and expectation facilitates any policy making to enhance the quality of care.

2) Structural Context

Structural factors are the relatively unchanging elements of the society that influence health policy.22 Certain structural factors facilitating regulation were as follows:

2-1) Expansion of nursing Education:

In a period of 100 years, nursing education in Iran has witnessed much progress in the quality and quantity. Nursing was not recognized as a profession in Iran in the beginning of the 19th century. About a quarter of a century ago, nurses began to be educated in higher education institutions. This change was heralded as an opportunity to enhance the professional status of nurses in Iran.23 Many scholars believe that new nursing graduates do not have the needed competency to begin work. Challenges such as the recruitment of incompetent nurses for providing care exist;24 thus, a nursing registration system and an examination would be helpful.

2-2) Establishment of the nursing organization:

The Iranian Nursing Organization (INO) was established in 2001 by the Parliament as a legal nursing organization in the country. The Iranian Nursing Organization has achieved an enormous improvement in a relatively short period of time. They are active across the country and reach out to their colleagues in other parts of the world; in addition, they work regularly with all the forms of media here in the country.25 One of the goals of the INO is to work towards maintaining the rights of nurses and other people against nursing services.

2-3) Shortage of nurses:

In recent years, shortage of nurses in Iran has become a major challenge for health care system managers.26 There is a concern about the employment of laypersons in nursing positions. The professional belief is that registration is a means to protect the public and the title of the nurse, and prevents other people with no nursing education to become involved in the nursing practice.

2-4) Status of nursing in policy making:

The involvement of Iranian nurse leaders in policymaking for nursing has increased in recent years.10 The establishment of the position of the Deputy Minister of Nursing Affairs in the MoHME in 2013 was an important event in the history of nursing of Iran. This progress in the position of the office of the nursing has been accrued by an approval of the cabinet and the direct support of the president. The presence of nurses in policymaking positions allows them to follow the programs aiming towards an increase in the quality and the implementation of public-oriented interventions like nursing registration. The Deputy of Nursing was
responsible for many aspects of nursing such as standards and supervision. One of the goals of Deputy for Nursing was establishment of nursing registration system. Draft for nursing registration was prepared by this department and it can get approval of Health Minister.

3) Situational Context
Situational factors are more permanent or less transient, or idiosyncratic conditions, which can have an impact on the policy making.

3-1) General Health Policy:
Recently, the general health policies endorsed by the supreme leader have been communicated. By implementing these policies, a noticeable improvement is expected to occur in different aspects including management. According to Article 6.2 of this policy, the correction and completion of the monitoring, supervising, and evaluating mechanisms for lawful protection of the public and people's rights is one of the main policies; the MoHME has been appointed to hold supervisory responsibilities. According to the political situation of the Leader of Iran, this was an important issue that enforced the government, and in particular, MoHME for directing the programs to set policies to protect the public. Many sectors of health systems such as education, drug and food, and insurance have programs for implementing these policies. The nursing profession, which has an important and influencing effect on the health of the workforce, had to change and implement new ways in line with this policy. Therefore, it facilitated the emergence of nursing registration as a tool for public protection.

3-2) Commitment of the New Government towards health:
After the eleventh presidential election in Iran in 2013, Iranian president, Hassan Rouhani, had promised healthcare for all Iranians in the next four years. He emphasized that the meeting the health concerns of Iranians was one of the major priorities of the government. As healthcare became the priority of the government, the implementation of the initiatives in different areas began; one of these initiatives was the nursing registration system.

3-3) Health Reform Plan:
According to the vision of the new government, the Health reform plan or officially Health Sector Evolution Plan (HSEP) launched in 2014 as the newest reform in the Iranian health system. It included different interventions such as an increase in the population coverage of basic health insurance, an increase in the quality of care in MoHME-affiliated hospitals, a reduction of out-of-pocket (OOP) payments for in-patient services, and an increase in the quality of primary healthcare. Although the main approach of the HSEP was on financial matters, quality was an important concern. In nursing, with the aim of increasing the quality of nursing care, according the Action Plan of MoHME, all nurses should be registered by the MoHME within a period of 5 years.

3-4) Community-distressing malpractice (Sadra Event):
The denial of suturing service by a nurse for an injured 5-year-old boy “Sadra” was a shocking event in recent years. Many media covered the news related to this malpractice and all the health officials including the Health Minister, the Deputy Ministers, and other jurisdictions and media experts viewed this event as an unacceptable behavior. A Deputy prosecutor stated that a physician and a nurse from the city’s hospital had been ordered to be taken into custody after they were arraigned on a charge of negligence in the case of a five-year-old patient. The Deputy Minister of Treatment Affairs said that the agent of this case should be assessed for psychological fitness required for nursing practice. This nurse had no previous record of a fitness requisite necessary to work and nobody could guarantee that such behavior would not recur in the future.
The need for establishment of a mechanism for the registration of nurses and a continuous monitoring of their physical, mental, and ethical fitness was strongly perceived.

3-5) Country’s visionary statement:
Publishing the document, IRAN 2025, as a strategic direction for the development of different aspects of the country took place in 2005. By announcing Iran’s Vision Policy of 2025, the direction of the country’s development was designed for the next two decades. According to this vision, in 2025, Iran will be a developed country, with a first-class economic, scientific, and technological status in the region, with an Islamic and revolutionary identity, which will be inspiration in the world of Islam with the constructive and the effective interaction of international relationships. This vision encouraged the health system to move toward a favorable position in the region. As many countries in the region have implemented the nursing regulation system, the MoHME intended to introduce nursing registration to reach this vision.

4) Exogenous or International Context
Exogenous or international factors consist of those factors which lie outside of the realm of domestic policy making.

4-1) Globalization and the International trends of Nursing Regulation:
Globalization is impacting everything including regulation at the local, national, regional, and international levels. In recent decades, international connectivity has increased on many fronts, including the flow of information, the movements of people, trading patterns, the flow of capital, regulatory systems, and cultural diffusion. The phenomenon of increasing globalization has affected nursing regulation.

In this era, all health systems should consider nursing regulation as a priority. World Health Organization (WHO) has introduced the directive “Advocate effective systems of professional regulation, and strengthen and support the legislative authority to implement them” as an intervention for certain countries in order to optimize policy development, effective leadership, management and governance, global chief nursing and midwifery officers have “in collaboration with key partners, strengthen the regulatory mechanisms for nursing and midwifery”. The East Mediterranean Region Office (EMRO) of the WHO urged the member countries to “continue to strengthen nursing and midwifery regulatory systems, including the establishment of nursing and midwifery councils”. Iran, as a member of the global community and WHO, introduced nursing regulation in response to international trends and obligations.

4-2) Membership in ICN:
Iranian Nursing Organization (INO), the most representative nursing body in Iran, became a member of the International Council of Nurses (ICN) in 2008. The ICN has a long history of regulation and regulation is one of the organization’s three pillars. After joining the ICN, the international relations of Iranian nurses increased and certain special empowering programs such as Leadership For Change (LFC) and workshops for nursing regulation were held by the cooperation of the EMRO of the WHO and the ICN as well as their counterpart, the INO. The attendance of Iranian nursing officials in international meetings and formal contact with regulatory bodies in other countries had an important influence on the formation of the need to complete a regulation system.

4-3) Migration of nurses:
An increase in the migration of nurses from their home countries to other countries is having a global effect on the healthcare system. This is a global issue. It is estimated that about 200 Iranian nurses leave the country to work in other countries every year. Although the migration of such a large number of nurses (a majority of them are skilled) is
a concern for the health system. This issue positively affects the nursing registration in two ways.

1- Every nurse to be registered in a destination country needs to be registered in her/his home country. In recent years, the request for issuing nursing registration certificates has increased. Iranian nurses and many regulatory bodies from other countries ask the Iranian government or professional bodies for the confirmation of registration.

2 - Many nurses who return from abroad carry the idea that nursing registration is a necessity for providing high-quality care, and a tool for protecting the profession and the title; in addition, it is a prestige for nurses worldwide.

**Discussion**

Findings of the present study revealed that structural and situational elements along with exogenous factors prolonged the process of the establishment of a comprehensive nursing regulation. Researchers and policy makers in health systems are interested in the ways which facilitate establishing new regulations in the field of nursing. This study had a novel approach, i.e. systematic assessment of the contextual factors facilitating the establishment of a comprehensive nursing regulation.

There are many socio-cultural and professional factors that facilitate establishment and determined the model of regulation in each country. It is important for those who are engaged in the nursing-workforce policy developments to consider the local cultures and contexts. In order to be effective, any system of regulation must take the economic, political, and cultural context in which the system is being implemented into account.

In the present study, it has been shown that the cultural role and hegemony of the government have an important role in establishing regulation. The role of the government in regulation has been stated in other studies. The regulatory framework reflects a region’s historic and governmental influence. For instance, the impact of neoliberalism as a dominant political ideology that began to emerge in the 1980s (Canada) has been described as having a profound influence on public policy, the health professions, and nursing practice. ICN has noted that the governments of all countries are revising health policies and changing the structure and management of organizations, and the way they deliver services.

Public recognition was a factor in establishing regulation. It is believed that without public acceptance, a profession’s ability to secure legislation to control its practice is doubtful. The current study showed that promoting the situation of the nursing managers in government is an important factor to establish nursing regulation. In a study conducted in Saudi Arabia, the increased recognition of the division of nursing within the Ministry of Health and the proper placement of nursing in its hierarchy at the Deputy Minister level is a necessity for the complete achievement of the current goals of nursing.

Increasing the number of nursing graduates is another factor essential in establishing nursing regulation. Evidently, a variation in nursing skills, critical thinking, and clinical decision-making is required for nurses deployed to tackle the bedside-posed issues; in these cases, there is a special need for regulation.

Unlike some neighboring countries, where factors like the existence of expatriates is an impetus for establishing nursing regulation, it was not effective in Iran as there are no expatriates in the nursing profession in Iran.

As this study was the first policy analysis of condition in which nursing regulation in Iran has emerged and the results could help other countries in similar situation to establish nursing regulation system, this research is novel. But limitation of the published research on the subject of regulation in Iran limited our access to more reliable sources of information. Study on the other elements of policy analysis
(content, process and actors) will enable us to get a brighter view about this issue.

The present model of regulation in Iran is state-regulation, which is not an ideal model. With the empowerment of the profession and the identification of the advantages of nursing regulation for the public, state-regulation can be changed to self-regulation with a greater involvement of nursing-profession bodies, i.e. the INO.

CONCLUSION

Professional regulation does not occur in vacuum and each country should consider contextual factors for establishing nursing regulation. Nursing regulation in Iran is a complex issue that affects many aspects of the profession and is also affected by many factors. The context for the formation of a regulatory body is country-specific and multidimensional. Although the principles of professional regulation should be employed by policymakers, the context of a country has a main role in determining how to implement these principles. Further researches are needed to explore the factors, processes and contents of nursing regulation policy in Iran.

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