

# Exploring the Necessity of the Establishment of Doctor of Nursing Practice Program from expertise's view; A Qualitative Study

mozhgan rivaz (✉ [mrivaz@sums.ac.ir](mailto:mrivaz@sums.ac.ir))

---

Research article

**Keywords:** Doctor of Nursing Practice, Essential, Establishment, Qualitative Study

**Posted Date:** January 20th, 2020

**DOI:** <https://doi.org/10.21203/rs.2.21253/v1>

**License:**  This work is licensed under a Creative Commons Attribution 4.0 International License.

[Read Full License](#)

---

**Version of Record:** A version of this preprint was published at BMC Medical Education on July 24th, 2021.  
See the published version at <https://doi.org/10.1186/s12909-021-02828-z>.

# **Abstract**

## **Background**

Complex healthcare landscape increasingly demands leaders who are adept at managing change in health care environments. The doctor of nursing practice (DNP) prepares nurses for the most advance level of clinical nursing practice. The aim of this study was to explore the necessity of the establishment of the DNP program in Iran from expertise's view.

## **Methods**

This study was conducted using a qualitative approach. The participants included thirteen faculty members and PhD candidates who were selected through a purposive sampling. Data were collected through focus group and semi-structured interviews, and analyzed using qualitative content analysis.

## **Results**

Qualitative data analysis resulted in two main categories: "provide infrastructures" and "DNP: as an opportunity to drive positive changes" with two categories respectively.

## **Conclusion**

The findings showed although DNP as an opportunity to drive positive changes is necessary in the nursing education, but inadequate resources, cultural, social, and economic differences in the developing countries especially in Iran, are important limitations of the implementation of the DNP. Therefore, a multidisciplinary collaboration to provide a well-integrated means of meeting the needs of the patients recommended for better designing of the DNP and break down the obstacles.

# **Introduction**

Healthcare systems are rapidly evolving. Complex healthcare landscape increasingly demands powerful nurse leaders who are adept at managing change for improving quality, access, and delivering patient-centered care (1). The nursing doctoral degree is necessary to promote autonomy, professional development, an appropriate professional position at the leadership and executive levels, research, and educational programs (2).

There are two kinds of terminal degrees in the nursing profession, including the Doctor of Philosophy (PhD) and the Doctor of Nursing Practice (DNP). Many programs that offered Doctor of Nursing Science (DNS) degree changed to PhD program (3). The focus of the PhD degree is on research and knowledge-generating that can be applied to practice, advance the theoretical foundations of the profession, and health care globally, while the DNP degree is a practice doctorate (4).

The DNP is a powerful strategy to prepare nurses for the most advanced level of clinical nursing practice “providing leadership for evidence-based practice” (5). The DNP, focuses on the advancement of practice outcomes through the roles of leadership, healthcare policy, interdisciplinary collaboration, and translation of scientific and theoretical knowledge into the practice for solving problems and outcomes improvement (6, 7).

In 2004, the American Association of Colleges of Nursing (AACN) suggested the DNP degree be the graduate terminal degree for advanced nursing practice in order to better align nursing with other health professions by 2015 (8). The combined knowledge and skills of both the DNP and PhD nurses can decrease the gap between theory and practice. Collaboration among DNP and PhD-prepared nurses to advance the knowledge and translation of research to practice provides educational opportunities, facilitates health care delivery, and improves the desired outcomes (1).

In Iran, doctoral program in nursing is limited to a PhD degree and large numbers of nurse educators and PhD candidates seek a doctoral degree for attaining tenure and promotion in universities. There were few clinical specialist positions for PhD graduates available and those who prefer academic and research roles (9). In comparison, in developed countries (e.g., the United States), doctoral education in nursing is undergoing a paradigm shift. Especially, programs offering the DNP degree are emerging rapidly over the past 8 years and universities continue to respond to the Institute of Medicine’s 2010 voice to double the number of DNP nurses by 2020 (10). In 2013, the AACN reported 221 current colleges and universities across the United States offering DNP degrees (11).

Despite the growing number of DNP programs in the United States, there is little evidence-based information about the impact of DNP on the patient outcomes and the healthcare organization. Also, there is not a standardized method or valid instrument for evaluating the impact DNP graduates on quality of care, the nursing profession, and healthcare outcomes (12). Besides, the faculty nursing shortage and consequently nursing shortage is a serious concern in the United States. DNP degree is considered as an effective strategy for turning the faculty shortage around. Kelly (2010) concluded that the DNP is not the answer to faculty shortage until faculty salaries are more competitive with salaries in clinical positions that attract advanced role nurses (13).

Therefore, the issue of the necessity or non-necessity of the DNP program in Iran’s nursing education system is still a challenge, and there are different perspectives in this area. Therefore, before moving to a new educational approach, the necessity of creating it should be explored by specialists. Due to the differences in social, political, economic, and cultural context of the healthcare system in Iran, the aim of this qualitative descriptive study was to explore the necessity of the establishment of the DNP program in the Iran’s nursing educational system from the perspective of experts in the nursing discipline.

## Methods

This study was conducted using a qualitative approach. The participants included thirteen faculty members and PhD candidates who were selected through a purposive sampling with the maximum variation. The inclusion criteria were having the PhD degree or be a PhD candidate, having at least a 2-years work experience, willingness to participate, and sharing insights about their experiences related to the topic of investigation.

The data were collected using one focus group discussion consisting of 11 individuals, and two semi structured one-on-one interviews with open-ended questions from March 2016 to June 2017 by the authors. The interviews began with a general question like "What do you think about setting up the DNP program in Iranian nursing education system?" Interviews continued on the basis of the participants' response and using probing questions. The duration of the interview in the focus group and each individual was 120 min and 30–60 min, respectively. Interviews continued until data saturation was reached. All interviews were recorded and transcribed in verbatim.

## **Data Analysis**

Data analysis was carried out simultaneously with data collection using the conventional qualitative content analysis method developed by Elo and Kyngas (14). This method consisted of three phases of preparation, organization, and reporting. In preparation phase, meaning units were extracted in the form of initial codes. In the organization phase, codes with similar meanings were labeled with one category; the connected categories were placed under one main category. The MAXQD software (Version 2007) was used to analysis the data.

## **Trustworthiness**

Integration in the data collection, constant comparative analysis, prolonged engagement, and maximum variance in sampling performed for increasing of credibility of the data. Moreover, member checking (giving back some of the interviews after coding to the participants to assess the extent of consensus over codes among researchers and participants) was considered. To provide dependability, parts of the transcripts, along with the extracted codes and categories, were sent to two external checkers for assessing the process of data analysis. The transferability of the data was achieved through providing rich descriptions (15).

## **Ethical Consideration**

The study was approved by the Research Ethics Committee of Shiraz University of Medical Sciences (No: IR.SUMS.REC. 1393. S7549). All participants were fully informed about the purpose of the study. Written informed consents were also obtained from the participants regarding voluntary participation and ensuring them of confidentiality.

## **Findings**

The participants included 11 women and two men. Demographic characteristics of the participants are summarized in Table 1. The content analysis led to the extraction of two main categories: “provide infrastructures” and “DNP: as an opportunity to drive positive changes” (Table 1).

## 1- “Provide infrastructures”

Most of the participants considered adequate provision of infrastructure resources are essential before establishing the DNP program.

### “Basic infrastructures”

It was considered as one of significant challenging factors in the transition into the DNP and was followed with subcategories: need assessment, role definition, evaluation factors that facilitate or impede this transition by executive countries, and cultural adaptations. In this regard, a participant stated:

*“I think infrastructure must first be provided. The roles of DNP nurses should be clearly defined; otherwise, it can lead to a big challenge”*

*“We need to have an assessment program at colleges, hospitals, and the community levels” (11 # F.G)*

*“DNP setup should be based on the needs and context of the Iranian community.” (# 10)*

Participant No. 3 said: *“... We still do not have a definite role in clinical settings for the Ph.D. graduates. At present, I do not think the DNP launch will be successful. I can't even say that decent salaries and benefits will be available for them. Even cultural adaptation is important here”*.

*“The fact that the DNP program exists only in developed countries, it is not enough reason for the establishment of the DNP program in the Iran. The proliferation of DNP degree programs in some developed countries has created a series of challenges and confusion ...” (# 5)*

### 1-2 “challenges toward to offering to the DNP without providing infrastructures”

In the viewpoint of the participants, graduates' frustration after the unsuccessful the DNP performance, lack of guarantees for promoting patient outcomes, inadequate support for promotion of profession merely with the DNP setup, burden on the healthcare system, and blind imitation of western countries formed subcategories of this category.

*... “The DNP is not a certain solution for ensuring the quality of care and unsuccessful implementation of it will be graduates' frustration”. (# 9)*

## **2. “DNP: as an opportunity to drive positive changes”**

DNP: as an opportunity to drive positive changes was the second main category with following two categories:

### **2.1 “DNP to meeting of new emerging patient needs”**

Apply knowledge to practice, increasing the access to information, technological advances, changing needs of patients, and the complexity of healthcare systems are the key factors in the need to improve specialized care.

Weaknesses of the PhD program in improving clinical competency in graduates were another important concern among the participants.

Participant No. 3 said:

*“Nurses need to achieve a more significant role in the clinical settings. One of the weaknesses of the PhD program is a theory-based curriculum. Graduates increase their distance from the clinical settings by upgrading their degree.” (# 13)*

*“I believe nurses with practice doctorate can apply knowledge in a practice to solve problems. (#6)”*

### **2-2 “improvement of patient outcomes”**

This category is followed by three subcategories: evidence-based practice development, decrease the theory – practice gap, and advancement nurses' roles.

Evidence-based practice is as the gold standard for the provision of safe care based on new research. This approach has a significant role in improving the patient outcomes and reducing the between theory-practice gap.

*“.... Evidence-based nursing can bridge the gap between research findings and clinical practice; increasing nursing enthusiasm for research” (# 12)*

*According to Participant 1:*

*“...There is no doubt that we need DNP because one of the major challenges in nursing education is a theory-practice gap. Perhaps, a strategy that helps to resolve this problem is to establish DNP”*

## **Discussion**

Exploring the necessity of the establishment of the DNP program in Iran from expertise's view was the purposes of this study. Although the DNP program promotes professional position at the leadership

levels and improves the quality of nursing care and patient safety, participants had a clear concern about their management and organization in the clinical settings. The findings demonstrated the inadequate infrastructure resources are the important obstacles toward to offering to the DNP in Iran. The most major barriers, including curriculum, faculty members, clinical environments, salary, position, autonomy, and role definition as well as contextual factors. The Iranian's Medical Education Context is physician-centered .In this context nurses haven't enough authority for driving positive changes in healthcare settings. This finding is similar to study of Vahedian-Azimi et.al (2014) (16).

Evidence shows that poor nursing practice environment and insufficient resources (17), inadequate support for involving in evidence-based practice, organizational barriers, lack of effective position of decision making, poor motivation for applying evidence in the practice and, preferring to follow doctor's orders are the most important challenges in this issue<sup>(18, 19)</sup>.

Certainly, shifting to new paradigm to solve these problems is not achievable only by the DNP without providing foundations. The DNP program is only one piece of the puzzle in solving these issues. Stoeckel and Kruschke (2013), assessed DNP-prepared NPs' perceptions of the DNP degree, the results showed although the DNP programs improved those to in areas of population health, evidence-based practice, research, and, healthcare policy, it does not result in any significant progress in the clinical skills. Participants mentioned laws and regulations as barriers to the full practice of the DNP-prepared nurses (20).

Ambiguity the role of the DNP graduates in public and other healthcare professions mentioned as another of the significant concerns. In the same line, Udlis and Kimberly (2015) stated that multiple areas of ambiguity concerning the role of DNP-prepared nurse existed in research, academia and academia leadership and, scholarship (21).

According to DNP critics, the recommendation to the DNP degree without focusing on research is not applicable. In fact, this is a challenge facing DNP executive countries. It is essential to equip DNP students with clinical research skills, quality advancement competencies, and the opportunity to apply knowledge in the practice of desirable healthcare delivery (12). Therefore, the DNP programs and curriculums must continue to be refined and reformed (12, 22).

In addition to, the exponential growth in the number of the DNP programs in the U.S has raised significant concerns about the discipline's continuing ability to build a body of knowledge at a suitable rate (7). Nickasch et.al (2018) in a mixed-method design, identified perceptions DNP- or PhD-prepared nurses about collaboration and utilization of DNP- and PhD-prepared faculty, staff, and administrators. The findings demonstrated DNP–PhD division, lack of collaboration, and sub-optimal utilization of DNP and PhD individuals. The Authors recommended administrators should make organizational changes that break down obstacles between DNP- and PhD-prepared faculty, staff, and administrators(23).

The failures to apply the knowledge generated by the PhD graduates and the need to improve quality of care have been the motives to make efforts to overcome this gap.

Brown and Crabtree (2013) noted that doctoral education is undergoing a paradigm shift that shows the need to more rapidly improve practice expertise and move the translation of research into practice. They proposed the creation of the DNP as one of the ways to achieve improved clinical practice and the translation of evidence into practice (24).

Although, the findings of our study showed the provision of infrastructure is an essential component in establishing the DNP program, DNP an opportunity to drive positive changes extracted as the second main categor. Some of the participants supported the DNP degree in the Iranian nursing education context as the most appropriate degree for providing advanced clinical practice, clinical leadership, and redesigning the health care system.

They believed due to technological advancement, complexity of healthcare systems, changing needs of patients need to improve specialized care and consequence improve patient outcomes. Feizolahzadeh et al. reported that the PhD graduates in Iran have excellent qualifications in management, education, and research. Clearly, graduates will not be able to meet the needs of clinical settings focused on specialized care. The current PhD program cannot improve the graduates' clinical skills. Therefore, hiring them in the clinical settings will waste their time, energy, and expertise. The authors suggested designing and implementing the DNP program for advanced evidence-based practice (9).

The DNP nurses have a higher qualification as an equal member of the healthcare team who can make constructive changes at the macro level and lead the care system to positive changes in the future (25).

Murphy et al. concluded that collaboration between DNP and PhD-prepared nurses to advance the science and translation of research to practice, provides educational opportunities, facilitates healthcare delivery, and results in positive outcomes (1).

DNP-prepared nurses, as clinical leadership, can play an important role in changing the healthcare systems, improve specialized care, evidence-based practice, and patient outcomes (26).

## **Limitation**

The qualitative design of the study with purposive sampling, generalization of research findings to the larger population is limited.

## **Conclusion**

Ultimately, the establishment of the DNP program isn't necessary in the Iran's nursing education system. Based on the findings, supplying infrastructure is a key component toward to offering to the DNP in Iran. Inadequate resources, cultural, social, economic, and, political differences in the developing countries especially in Iran, compared to developed countries, are important limitations of the implementation of the DNP. Therefore, the development a new program (DNP) should be based on meeting the healthcare system needs and the society's requirement. On the other hand, prior to shifting to a new paradigm, its

advantages and disadvantages should be carefully evaluated and criticized in the cultural context of each society. Although DNP as an opportunity to drive positive changes is recommended in the nursing education, but in the current situation, the use of alternative solutions may have a better and faster effect than the DNP setup. In this regard, curriculum revises and development in the master's science in nursing (MSN) levels, modifying and refining the PhD program such as, creation fellowship programs with a focus on clinical practice may be helpful in improving patient outcomes and decreasing the theory-practice gap.

Finally, a multidisciplinary collaboration is recommended to provide a well-integrated means of meeting the needs of the patients and families.

## Declarations

**Conflict of interest:** None declared

## References

1. Murphy MP, Staffileno BA, Carlson E. Collaboration among DNP-and PhD-prepared nurses: Opportunity to drive positive change. *Journal of Professional Nursing*. 2015;31(5):388-94.
2. Zerwekh J, Garneau AZ. *Nursing today: Transition and trends*: Elsevier Health Sciences; 2014.
3. Reid Ponte P, Nicholas PK. Addressing the confusion related to DNS, DNSc, and DSN degrees, with lessons for the nursing profession. *Journal of Nursing Scholarship*. 2015;47(4):347-53.
4. Polit DF, Beck CT. The content validity index: are you sure you know what's being reported? Critique and recommendations. *Research in nursing & health*. 2006;29(5):489-97.
5. (AACN) AAoCoN. *The doctor of nursing practice: Current issues and clarifying recommendations*. Washington, DC: AACN. 2015.
6. American Association of Colleges of Nursing (AACN). *The research-focused doctoral program in nursing: Pathways to excellence*. Washington, DC: American Association of Colleges of Nursing. 2010.
7. Edwardson SR. Doctor of philosophy and doctor of nursing practice as complementary degrees. *Journal of Professional Nursing*. 2010;26(3):137-40.
8. American Association of Colleges of Nursing. AACN position statement on the practice doctorate in nursing. Washington, DC: American Association of Colleges of Nursing. 2004.
9. Feizolahzadeh H, Hasani P. Challenges and opportunities of doctorate of nursing graduates in clinical settings. *Journal of Health Promotion Management*. 2012;1(1):74-84.
10. Institute of Medicine . Committee on the Robert Wood Johnson Foundation Initiative on the Future of Nursing. *The future of nursing: Leading change, advancing health*: National Academies Press Washington, DC; 2011.

11. Suhonen R, Stolt M, Virtanen H, Leino-Kilpi H. Organizational ethics: a literature review. *Nursing ethics*. 2011;18(3):285-303.
12. Pritham UA, White P. Assessing DNP impact Using program evaluations to capture healthcare system change. *The Nurse Practitioner*. 2016;41(4):44-53.
13. Kelly K, editor Is the DNP the answer to the nursing faculty shortage? Not likely! *Nursing forum*; 2010: Wiley Online Library.
14. Elo S, Kyngäs H. The qualitative content analysis process. *Journal of advanced nursing*. 2008;62(1):107-15.
15. Holloway I, Galvin K. Qualitative research in nursing and healthcare John Wiley & Sons, (Chapter 18) . 2016.
16. Vahedian-Azimi A, Ebadi A, Saadat S, Negarandeh R, Ahmadi F. Professors' view on the appropriate postgraduate degree in nursing education: A comparative study in two different sociocultural societies and literature review. *International Journal of Medical Reviews*. 2014;1(1):13-23.
17. Rivaz M, Momennasab M, Yektatalab S, Ebadi A. Adequate Resources as Essential Component in the Nursing Practice Environment: A Qualitative Study. *Journal of Clinical and Diagnostic Research*. 2017;11(6):IC01-IC4.
18. Adib-Hajbaghery M. Factors facilitating and inhibiting evidence-based nursing in Iran. *Journal of advanced nursing*. 2007;58(6):566-75.
19. Solomons NM, Spross JA. Evidence-based practice barriers and facilitators from a continuous quality improvement perspective: an integrative review. *Journal of nursing management*. 2011;19(1):109-20.
20. Stoeckel P, Kruschke C. Practicing DNPs' perceptions of the DNP. *Clin Scholars Rev*. 2013;6(2):91-7.
21. Udlis KA, Mancuso JM. Perceptions of the role of the doctor of nursing practice-prepared nurse: Clarity or confusion. *Journal of Professional Nursing*. 2015;31(4):274-83.
22. Buchholz SW, Yingling C, Jones K, Tenfelde S. DNP and PhD collaboration: Bringing together practice and research expertise as predegree and postdegree scholars. *Nurse educator*. 2015;40(4):203-6.
23. Nickasch BL, Lehr MM, Schmidt B, Henne T, Wippich C. Current Perceptions: The DNP–PhD Divide. *Journal of Doctoral Nursing Practice*. 2018;11(2):107-13.
24. Brown MA, Crabtree K. The development of practice scholarship in DNP programs: A paradigm shift. *Journal of Professional Nursing*. 2013;29(6):330-7.
25. Kendall-Gallagher D, Breslin E. Developing DNP students as adaptive leaders: a key strategy in transforming health care. *Journal of Professional Nursing*. 2013;29(5):259-63.
26. Fitzpatrick JJ. Is the Doctor of Nursing Practice (DNP) the Appropriate Doctoral Degree for Nurses? MCN: The American Journal of Maternal/Child Nursing. 2007;32(3):138.

## Tables

**Table 1.** Demographic characteristics of participants

Gender: Male( 2),Female (11)

Age : Between 27 to 52

Highest education level: PhD

Rank:

Faculty member, PhD (4)

PhD candidate (9)

Years of clinical experience: Mean =5

Years of educational experience: Mean =12

**Table 2 Main categories ,Categories, and Subcategories**

<b>main categories</b>	<b>Categories</b>	<b>Subcategories</b>
<b><i>1. provide infrastructures</i></b>	1.1 basic infrastructures	1.1.1.Defining the role and scope of graduates 1.1.2.Evaluating the experiences of the DNP executive countries 1.1.3.Cultural adaptations
	1.2 Challenges toward to offering to the DNP without providing infrastructures	1.2.1. Graduates' frustration after the unsuccessful DNP performance. 1.2.2. Lack of guarantees for promoting quality of care. 1.2.3. Lack of promotion of professional development merely with the DNP setup. 1.2.4. Burden on healthcare system. 1.2.5. Blind imitation of Western countries
<b><i>2. DNP: as an opportunity to drive positive changes</i></b>	2.1 DNP to meeting of new emerging patient needs	2.1.1. knowledge development 2.1.2.Technological Advancement 2.1.3.complexity of healthcare systems 2.1.4. Changing needs of patients. 2.1.5.development of clinical nursing practice
	2.2 improvement of patient outcomes	2.2.1.Evidence-based practice development 2.2.2.Decrease the theory - practice gap 2.2.3.Advancement nurses' roles