Ph.D. in Nursing from Theory to Reality
Keramatallah Zandi Ghashghaie¹, Faramarz Kalhor², Maryam Hesarimoghadam³, Fatemeh Joonbakhsh⁴,*

¹Clinical Research Development Unit Beheshti Hospital, Yasuj University of Medical Sciences, Yasuj, Iran
²Nursing and Midwifery Care Research Center, Faculty of Nursing and Midwifery, Isfahan University of Medical Sciences, Isfahan, Iran
³Department of Nursing and Midwifery, Bojnourd Branch, Islamic Azad University, Bojnourd, Iran
⁴Department of Pediatric and Neonatal Nursing, School of Nursing and Midwifery, Isfahan University of Medical Sciences, Isfahan, Iran

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ABSTRACT

Higher education programs need quantitative and qualitative evaluation to improve quality and dynamism. The sensitivity and importance of the role of Ph.D. nursing graduates led the researcher to conduct the present review to examine and identify the problems to achieve the highest goals of nursing from theory to reality. In this review study, various internal and external databases, including Elsevier, pubmed, Scopus, SID, magiran, medlib, were used to access internal resources. Published articles were searched in both Persian and English without considering the time and language limitations, and the data were analyzed using meta-analysis. In the initial search with the keywords of nursing doctorate, postgraduate nursing education, higher education in nursing, and their English equivalent, a total of 435 studies were found. The findings were discussed in terms of curriculum-related factors, faculty, students, and faculty policies. Nursing education in Iran needs to be reviewed and reformed based on the current needs of society. Prerequisite for achieving this goal is basic pathology of the course, the examination of gaps and needs in the health system, attention to clinical issues and problems of the health care system, quantitative and qualitative evaluation of different levels of nursing education, and in a higher position, a doctoral degree in nursing has a professional reputation as a nurse.

GRAPHICAL ABSTRACT

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* Corresponding author: Fatemeh Joonbakhsh
E-mail: joonbakhsh_msc90@yahoo.com
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Introduction
Nursing is a health care specialty that focuses on the care of patients, families, and communities so that they can reach, sustain or restore optimum health and quality of life. Nurses can be distinguished from other health care providers regarding patient care, preparation and practice. Nurses specialize in a variety of specialties with varying degrees of prescribing authority. Many nurses provide treatment within the expertise of physicians, and this conventional position has influenced the public perception of nurses as providers of care. The nursing profession has long been faced with many challenges at certain periods in various forms such as the professionalism of challenges, professional independence, gaps in theory and practice, social status, and so on, disturbs the nursing profession [1,2,3]. Always professional nursing practitioners and experts have made great efforts to overcome the challenges of the evolution and improvement of professional status. However, the challenges of the nursing profession also affect operating time [4,5]. The challenges of the modern nursing profession can be cited as issues related to nursing doctoral degree education [6]. Doctoral nursing is highest level of higher education in the profession with the awarding of lead and aims to train individuals who search to find work of Ibn particular area and become acquainted with the modern methods of research and achieve the first new foundations of the energy and energy of the energy in the zones 1 and 3, the energy of the sun and the energy in the sun, and the energy in the world [7,8].

Doctoral programs in nursing are expanding all over the world, and graduates of this course, as professional nurses, are expected to improve the situation of nursing care in the health system, according to the needs of society and act as the promoters of nursing science, professional counselors, as well as educators and future nursing researchers [9–11]. Also, considering the rapid and progressive changes that occur in the community, health system, and nursing profession, special attention is paid to the education and training of this degree [12]. However, training nurses in the doctoral program has positive consequences. It has contributed to the profession and the health care system, but in this direction, due to the development of nursing education and the small growth of nursing Ph.D. students, it has always faced concerns such as ensuring the adequacy of graduation at this stage [13]. Quality assurance of doctoral courses in nursing is one of the most important priorities that will affect the development and improvement of educational programs because the existence of high-quality programs facilitates the training of competent and efficient students [14]. Undoubtedly, the biggest challenge for nursing students and graduates is to face a deep gap between the ideals and the undefined position in the clinic in theory and reality [15–18]. In Iran, the knowledge gained from studying at the highest level of the nursing profession is limited to the boundaries of academia remain, and the practical application of what is learned in the clinic is ignored [19]. Taking into account the sensitivity and importance of the role of nursing Ph.D. graduates in the one hand, and the realization of the goals and missions of higher education from theory to reality on the other, the researcher decided to conduct the present study to examine and identify the problems related to the existing gap to deal with the obstacles and problems.

Material and methods
This study intends to investigate the reasons related to barriers in realization of the excellent goals of a nursing doctorate in reality. For this purpose, various internal and external databases, including Scopus, SID, magiran, SCI Madlib, and pub med, were used to access internal resources. Keywords used included Ph.D. in Nursing, Postgraduate Nursing, Higher Education in Nursing, and Meta-analysis. Keywords were searched in the title and abstract of the documents [20]. The problems were in realizing the great goals of the Ph.D. in Nursing. References to articles that were eventually included in the study were also manually reviewed to evaluate
relevant sources that may not have been retrieved in the electronic search for inclusion in the study. Articles were collected regardless of time and language restrictions. Inclusion criteria were evaluated. Due to the study of the problems in the Iranian doctorate in nursing, internal research related to Iranian researchers was used, who discussed the problems of this degree of the nursing profession in their studies. These were other criteria for including studies in which the full text was available. Theses, letters to the secretary, and abstracts of conference papers were removed from the search results. To evaluate the quality of the collected articles, two researchers reviewed the articles in terms of title, abstract, introduction, methodology, results, discussion, and support sources. All the necessary ethical issues regarding the correct use of the extracted articles and the criteria related to the publication of the work were observed.

**Result and Dissection**

In the initial search with Persian keywords Ph.D. in Nursing, Postgraduate Nursing Education, Higher Education in Nursing and Meta-Analysis, and their English equivalents: Ph.D. Nursing, Postgraduate Nursing, Higher Education in Nursing, and Meta-Analysis, a total of 435 studies were found, 268 of which were not Iranian. Articles were removed from the study cycle. 167 studies were examined in more detail, of which 116 studies examined the master's degree program and 38 studies did not examine the problems in the doctoral program in nursing. Finally, 13 articles were reviewed. PRISMA diagram shows how to search for articles.

For easier analysis and comparison of study results and their practical presentation, first we clearly specified the goals and perspectives defined in the nursing doctoral curriculum and then examined the underlying factors of problems that lead to the failure of goals from theory to reality in four areas of the curriculum, faculty, students, and faculty policies (Table 1).

One of the research methods in identifying the obstacles and problems in the field of education is the adaptive techniques of the predefined perspective with the current situation. Accurate knowledge of goals and what should be done helps to solve problems in the situation as it is; therefore, the definition, structure, content, and history of the doctoral course and the values, beliefs, mission, general goals, executive strategies of the educational program and the expected capabilities of the graduates were specified as follows.

**Defining course and history**

Efforts to obtain a license to establish a doctoral degree in nursing began in the 1960s in Iran, and correspondence and agreements and curriculum development began practically and consistently in the 1970s, that is, from 1991 onwards. These efforts were successful in 1994, and the program of this course was agreed upon at Tabriz University of Medical Sciences. The first doctoral course in nursing at Tabriz University of Medical Sciences began with three students in Iran, and then in 1996, Tarbiat Modares University began training doctoral students in nursing four students. From 1995 to 1999, only two universities, Tarbiat Modares and Tabriz, accepted students, and this year, the universities of Iran and Tehran also accepted nursing students for the first time in the doctoral program.

**Values, beliefs, mission, and vision**

This category aims at the development of a culture of piety and human development, preservation of human dignity, the establishment of social justice, observance of medical ethics, efforts to establish a meritocracy system, determining the satisfaction of employees and service providers training efficient and needed human resources in the fields of nursing, midwifery, anesthesia and room practice and producing knowledge in the above fields to improve the health of the community.
**General goals**
The general goals include training teachers with educational and research qualifications, providing the required manpower for the country's universities, achieving professional self-sufficiency.

**Expected competencies, roles, and professional duties of graduates**
As far as expected capabilities are concerned, graduates of this course, while eliminating the shortage of quantitative and qualitative manpower, will be able to plan and manage training courses and conduct research in the fields of education, services, and management in nursing. Graduates will also be able to analyse career issues and provide appropriate solutions. As for professional duties of graduates, such issues are meant: teaching in postgraduate and undergraduate courses in the field of nursing using modern methods, acting as a consultant in conducting research based on community needs and publishing research results, conducting educational planning, participation in specialized and professional planning.

**Training program on implementation strategies**
This section includes presenting courses as student-centered, presenting lessons through problem-solving, presenting lessons through group discussion, presenting lessons by strengthening economic thinking, obliging students to write scientific and research findings concerning each lesson.

**Content of Nursing Ph.D. course**
The course consists of two stages: educational and research. The total number of educational units is 25, which includes courses in epidemiology, principles, and philosophy of education, theorizing, nursing education systems in Iran and the world, research methodology in nursing, a critique of qualitative and quantitative research in nursing, inferential statistics, modern approaches of teaching, educational management, information technology in nursing, nursing challenges, testing and evaluation, and 20 research dissertation units in the research phase.

**What emerges from the Nursing Ph.D.?**
Curriculum is the perspectives and values based on the principles of strategic planning, and as can be seen, the vision of goals is understandable and clear and is precisely developed in agreement with justice. It also explains an ideal situation. Values and beliefs are expressed based on the system of Islamic values that govern society, and its emphasis is on piety and the establishment of social justice, and the general goals of providing the human resources needed by universities and professional self-sufficiency to solve problems are considered. Passing the study course with compulsory units with two-unit chapters is one of the characteristics of this course, which will be reviewed in detail below. In a study by Moayed et al. [13], a comparison was made between Iranian universities with a doctorate in nursing and Johns Hopkins University as the first nursing university in the world. Education and research in nursing clinics and the appropriate relationship between mission and goals in the lesson plan are significant, and the needs and problems of the community are covered by the inclusion of courses; also, specialization along with offering optional courses has been the point of difference between the two cases. As mentioned, there is a deep gap between the goals stated in the curriculum and reality, the causes of which are related to many factors. In this study, the underlying causes of this gap in four areas of curriculum content, faculty, students, and faculty policies were examined.

**Curriculum**
The field of nursing is based on practical sciences, so the graduates of this level of the nursing profession should consider themselves as having the opportunity to take ten years of training and training. Do not engage with the clinic professionally and at the highest level, and this will not be possible without having strong curricula based on clinical sciences, while in
educational programs, most units are theoretical and concerning activities in the fields, problems, and clinical care. There is no independent unit [13,19].

It also seems that the curriculum is not following the needs of society and the education system of the country; in addition to paying attention to the basic needs of learners, we should also pay attention to the needs, issues, and health problems of society and consider them as important criteria in curriculum development. The courses related to information technology do not meet the needs of students to do research, and the duplication of educational content and its overlap with units passed in graduate school and the lack of foreign language courses are other problems of the curriculum [17]. It can also be inferred those passing units such as research methods in nursing and clinical need prerequisites such as sociology and anthropology because the goals and content of nursing are influenced by other disciplines and humanities and social sciences. The subject can have a great impact on increasing the productivity of learners and making the content more practical [21,22].

Another problem is the inadequacy of the quantity and quality of courses related to theories. The low number of courses and not addressing it critically is one of the causes of this problem that can be lessened by offering the courses related to theories and teaching them to conceptual form and modeling for nursing phenomena and testing it in the real world, which add to the credibility and quality of education in this field. It seems that the specialization of educational trends makes this degree much more practical and leads to the clinic, meeting the needs of patients and people in the community, and helps students to become more objective in nursing education. Teachers and faculty members are no exception to the benefits of this type of educational quality and become more capable and operational than before [23]. Selecting the compulsory curriculum reduces motivation to learn, while students in universities in other countries are involved in more than half of their courses, and they are usually selected according to their thesis. Compulsory pre-determined courses and their incompatibility with professional challenges and dissertation topics lead to longer study time in the nursing doctoral program. Having autonomy in the selection of courses in addition to increased motivation, efficiency, and effectiveness of their education, and the diversity in the educational process in this period help graduates to meet the needs of a more effective role in their community [24, 25]. Considering nursing doctoral students in Iran, such situations are very important because this can save time and help them choose their thesis studies with no delay. The curriculum is the main component of a system of formal education. Because this component is targeted, experiences and training specific for the promotion of excellence in various fields as well as the attention to clinical practice are the most important components of this dimension that are ignored.

**Teachers**

The competence of teachers is one of the influential factors in promoting this course and the lack of sufficient time for teachers to guide the dissertation is one of the important problems in this field [26]. Insufficient knowledge and skills and lack of appropriate feedback from teachers in the field of research and assigning courses to students and presenting heavy, time-consuming, and inconsistent assignments with the objectives and chapters of the course, as well as the lack of presentation of new ideas by teachers were considered as important weaknesses of teachers [27]. Absence of two or more teachers in some classes and workshops related to challenging topics and the ceremonial role of consulting teachers and sometimes second supervisors and non-compliance of some teachers with current developments and failure to teach some courses at the applied level (such as statistics) in terms of Students were other problems related to teachers [28]. Teaching in traditional and teacher-centered methods by teachers cannot satisfy the
needs of graduates who are expected to act as experts and analyze the problems and provide appropriate solutions, which seems to be one of the most important causes of these problems. Therefore, employing more qualified faculty members can alleviate these problems.

**Students**

Concerns about employment seem to be the main reason for the non-fulfillment of executive strategies in reality, and it can be said that the lack of context and employment contexts in the clinic, unknown organizational position, and disproportionate salaries and benefits are the most important causes of these concerns [29,30]; however, in some countries, including Canada, America and Britain this post and job description for Doctor Nurse professional or operations are defined and identified, and it can be used independently of management and leadership in health systems and providing advanced services and evidence-based nursing play [31], so it is vital to enjoy a doctor's bedside nursing to revise the organizational chart and organization chart therapy, nursing special positions, job descriptions with a salary and benefits commensurate with the professional designing prepared by the authorities.

Also, the lack of proper overlap and balance of doctorate in clinics and education has led to graduates being away from clinical problems, and this provides an important ground for more students who are not interested in clinics, and this vicious cycle of teachers and faculty members shows that they are far from the bed and training students without a realistic view of the profession, is in contradiction with the main philosophy of the doctoral course based on nurturing teachers, researchers, managers, and leaders of the nursing profession to solve problems in the bed [13,32]. Also, not paying attention to students' interests in research-related topics and choosing courses has reduced the motivation of learners in this stage of the nursing profession. Numerous studies conducted in this field indicate that the average age of students studying in Iran is 36-46 years, and according to this, it can be inferred that to increase the utilization of the length of service of graduates, nurses should be encouraged to take the doctoral exam at a lower level [33].

**College policies**

Lack of sufficient financial resources and rewards to support student research, insufficient technical staff and faculty support, inadequate physical environment, lack of proper facilities, and access to libraries and electronic resources undoubtedly affect the promotion of graduates' research and educational areas. The inadequacy of codified seminars and training courses and conferences necessary to guide the dissertation adds to the scope of these problems [34].

**Conclusion**

This study aimed to evaluate the process of implementing each part of curriculum Ph.D. in Nursing in Iran. We also addressed the factors related to deficiencies and gaps to determine and respond to questions about the program implemented in the field and the obstacles in this regard. Based on the results, the profile of courses and course content is consistent with the philosophy and objectives and major difficulties lie in the implementation process and the output domain. The study shows the main reason for the gap between expectations and the reality of the curriculum is related to the academic climate. With the constant changes in health care, training programs should also change and be aimed at preparing nurses to play a role as full partners in providing services and shaping health care policies. Given the importance of having nurses with scientific and practical competence on patients' beds and the vast level of the health system, we need an education system based on the needs of the society.

High-quality apps for today's students are required to make them qualified and competent nurses in the future. Educational institutions that could provide a high-quality curriculum should be subject to review and be revised regularly. Dynamic changes in the external factors
demonstrate effective responses to such problems and issues related to bedside more attention day. Also, the quality of teaching by teachers and the needs related to students and promoting institutional policies can provide a quality academic experience for graduates of this level of the nursing profession. Undoubtedly, more attention today to this part of the nursing profession will lead to the achievement of long-standing ideals tomorrow; therefore, it is hoped that more attention will be paid by the officials to solve the investigated issues to achieve the goals in reality.

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Authors' contributions
All authors contributed toward data analysis, drafting and revising the paper and agreed to be responsible for all the aspects of this work.

Conflict of Interest
We have no conflicts of interest to disclose.

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