

Nursing Prescription: The State of The Art, Results of a Quantitative Study

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Received: 08 January 2021; **Accepted:** 30 January 2021

Citation: Vitale E, et al. Nursing Prescription: The State of The Art, Results of a Quantitative Study. Nur Primary Care. 2021; 5(1): 1-5.

ABSTRACT

The present study aimed to deepen the topic of nursing prescription in the international arena and investigate the degree of knowledge and interest of Nurses on the subject. A quantitative study was carried out, through a survey by administering an ad hoc questionnaire, to a convenience sample composed of nurses assigned to the departments of: Medicine, Neurology, Orthopedics, Pediatrics, Cardiology, General Surgery, Urology, Neurosurgery and Emergency Department of the "Santissima Annunziata" hospital in Taranto, Italy.

110 questionnaires were administered. Of these, 100 questionnaires were fully completed.

The vastness of the topic, the different ethical - deontological perspectives, the need to customize the assistance intervention, certainly suggest the opportunity for further study, extending the interviewed sample in quantitative terms.

Keywords

Nursing, Prescription, Quantitative Study.

Introduction

The right to prescribe drugs has long been reserved only for the medical profession. This has changed, with an increasing number of countries around the world introducing reforms to authorize nurses to prescribe certain medications. The United States of America and Canada have a long tradition with nurses working in advanced practice roles, which include the right to prescribe drugs [1]. The most common factors that have led to reform of nursing prescriptions include a shortage of doctors (as in rural areas), an increase in chronic conditions, greater inter-professional teamwork and an increase in nursing education. The introduction of new roles for nurses has been defined as a disruptive innovation

in the healthcare sector. For example, changes in laws and policies regarding the scope of advanced education programs have been shown to facilitate the adoption of prescribing nursing and other advanced practice nursing roles. Nursing prescription refers to the official right granted to nurses to prescribe certain medications. The extent of nurses' prescribing depends on several factors: first, the groups of nurses authorized to prescribe, which can range from highly specialized small groups of nurses to all nurse practitioners; second, the type of drugs nurses are allowed to prescribe, which can range from all drugs to a limited set; and third, general legal responsibility, ranging from independent prescribing to a delegated model under the supervision of a physician. Nursing prescribing has been shown to be comparable to physician prescribing practices, as measured by the number of drugs prescribed, as well as the types and doses of drugs chosen [2,3].

A Cochrane systematic review showed that nurses were as effective at prescribing medications as doctors for a range of conditions including chronic illness [4]. Non-medical prescribing has been subject to continuous development since its inception. This has led to changes in both the types of possible prescription and related terminology. The introduction of prescribing into the nursing profession was, in many ways, provisional, with the Medicines Act of 1992 allowing only a small group within a very large workforce to have the necessary education programs [5]. Furthermore, the limited form required a control and a restricted introduction of the prescription. The caution employed in introducing prescribing into nursing was, in part, due to the lack of a solid evidence base to support this new element of practice. A range of health workforce strategies are needed to address the problems of access and efficiency of health services. Rising health needs can be met in part by replacing tasks within the health workforce. One health workforce strategy for task replacement is to allow prescribing by health care professionals other than physicians. Extending the scope of a health service provider's practice, including the right to prescribe, has been advocated in several countries as a means of benefiting patient care through the effective use of healthcare professionals' skills, improving patient access to timely care, improving patient choice and teamwork, and the use of resources. By endorsing the definition of prescription can be defined as: "an interactive process involving information gathering, clinical decision-making, communication and evaluation that results in the initiation, continuation or cessation of a medicinal product" [6]. An international survey conducted in ten high-income countries (Australia, Canada, Finland, Ireland, the Netherlands, New Zealand, Spain, Sweden, the United Kingdom and the United States) showed that educational and legal conditions varied from one country to another. Among high-income countries around the world, Australia, Canada, New Zealand, and the United States are commonly cited for implementing laws that allow the prescription of a wide range of advanced practice nurse (APN) medications with a Masters. APNs in these countries are authorized to prescribe all or almost all drugs within their specialty. However, there are differences in the regulation of the drug. Creation of nurses, according to the collaboration agreements with doctors that are required by law. In Europe, the United Kingdom (UK) has a long experience with nursing prescribing, where two prescription models originated: independent and supplementary nurse prescribing. While the former model grants nurse the authority to independently issue prescriptions, including the initial prescription of a medicine for the first time, the latter model refers to continued prescription after medical [7,8].

Countries vary considerably in the number of medicines that nurses are officially authorized to prescribe, based on disease and type of prescription. The type of prescription refers to the initial and continuous prescription, of which the former indicates the right to prescribe new drugs, while the latter refers to the follow-up prescriptions after diagnosis and the first prescription issued by a doctor. Three of the 13 countries have granted full or near-full prescription rights to a specific group of nurses. The countries are Ireland (nurse prescribers), the Netherlands (nurse specialists)

and the United Kingdom (independent nurse prescribers). These groups of nurses are legally allowed to prescribe any medicine within their specialty. In the UK, the law was amended in 2006 giving independent prescriber's full access to the UK National Formula which grants the same prescription rights to doctors. In Ireland, nurse prescribers have been able to prescribe a full range of medications since 2007, including some controlled medications. In the Netherlands, an initially time-limited law was introduced in 2012, linked to a national assessment. The law has granted specialist nurses with an APN Master's full prescription rights within their specialty. After a generally positive evaluation, the time-limited nature of the law was changed indefinitely in September 2018. In the remaining countries, the extent of the prescription is limited, both in the number of medicines that nurses are legally authorized to prescribe and in the type of prescription, allowing mainly or exclusively continuous prescription. In the Netherlands (bachelor nurses with a major in diabetes, pulmonology or oncology), Norway (public health nurses), Poland (master's level) and Sweden (Bachelor's level), nurses are allowed to initially prescribe some medications from a limited set of drugs. In the Netherlands, the three Bachelor-level nursing specialties are allowed to initially prescribe a limited number of medicines within their specialty (prescription-only medicines), after a doctor has made a diagnosis. In Norway, public health nurses work in child health clinics and frequently in schools or youth health centers where they provide health counseling, including sexual health, and prescribe contraceptives. Public health nurses can officially prescribe all contraceptives for all women aged 16 and over. In one study, public health nurses wrote more prescriptions than doctors for young women between the ages of 17 and 18. In Finland and Spain there is a mix of initial and continuous prescription; includes initial prescriptions for vaccines and contraceptives and follow-up for highly prevalent chronic and acute conditions. In Denmark (Bachelor), Estonia (family nurse), Poland (Bachelor) and the United Kingdom (additional prescribers), nurses are allowed to carry out continuous prescribing, according to patient management plans and according to a delegated model [9,10].

Italy, as well as the other European states, should have implemented the laws, regulations and administrative provisions necessary to comply with the aforementioned European Directives by 25 October 2013 [11]. Our country at present with the Legislative Decree 219 / 2006 - title VI [12] identifies only doctors among the subjects entitled to prescribe the drug. Therefore, if you want to experiment with a path of extension of this faculty, in well-defined cases and always in agreement with the referring doctor, it would be essential to change it. Faced with the request to formalize this effective activity, and therefore to recognize its legal and professional contours, we are witnessing a real outcry of doctors, they believe that this activity impoverishes their role, that the health of citizens is seriously threatened, which would create confusion between roles. The nurse already in fact finds himself operating in situations in which the prescription, even if not formalized, "falls" within his routine activity. Paradoxical bureaucratic steps are carried out that require the doctor to prescribe devices whose use and opportunity it is the nurse who is the expert professional,

such as in the field of aids for oxygen therapy, vulnology, surgical dressings and / or vascular, the procedure and reading of blood tests, see and treat in the emergency wards. A further limitation is the University training which should be revisited by including an increased course in pharmacology in the first level degree or Masters should be set up to specialize and therefore train to acquire greater skills in the field of pharmacotherapy.

Objectives of the Study

This work aimed to deepen the topic of nursing prescription in the international arena and investigate the degree of knowledge and interest of Nurses on the subject. In particular:

1. Investigate the knowledge inherent to the figure of the nurse prescriber.
2. Assess the percentage of nurses who have attended advanced courses in the clinical-pharmacological field.
3. Evaluate the knowledge and the ability to apply it to the various ethio-pathological contexts.
4. Evaluate their opinion on the economic and organizational improvements that the nurse prescriber could bring to the healthcare organization.
5. Evaluate their agreement or disagreement in the development of the nurse prescriber in Italy.

Materials and Methods

A quantitative study was carried out, through a survey by administering an ad hoc questionnaire, to a convenience sample composed of nurses assigned to the departments of: Medicine, Neurology, Orthopedics, Pediatrics, Cardiology, General Surgery, Urology, Neurosurgery and Emergency Department of the “Santissima Annunziata” hospital in Taranto, Italy.

A brief introduction was reported in the questionnaire administered, illustrating the objectives of the study and the ways in which the data would be collected. The questionnaire consisted of 17 questions, of which 14 were multiple choice and 3 were open. The survey areas of the questionnaire included: demographics and occupational data, perceptions and opinions of nurses.

The data processing was performed by inserting the results in an Excel spreadsheet through which the total percentages per response were calculated.

Results

110 questionnaires were administered. Of these, 100 questionnaires were fully completed.

Of the total sample, 70% were women and 30% men. 12% of the sample is aged between 19 and 25, 42% between 26 and 35, 37% between 36 and 50 and 9% over 50. From the analysis of question no. 6, it emerged that 62% of nurses did not know the nurse prescribing drugs and only the remaining 38% had information on the subject. From question 7, it emerged that only 12% of nurses attended advanced courses in the clinical-pharmacological field, of which 60% were women and the remaining 40% were men.

The greatest fear encountered in those who have not completed advanced courses is given by the uncertainty of knowing how to apply basic knowledge to various ethio-pathological contexts. To this question, 46% of Nurses would not encounter problems, 37% on the contrary say that they would not be able to apply their knowledge and 17% refrained from answering. At question 12, 96% of nurses stated that nursing prescribing power would not have repercussions on other professions, while the remaining 4% fear it could be seen as an abuse of the profession and a loss of their professional identity.

To question 13, there is a large gap in the answers, as 89% of nurses argue that the nurse prescriber would benefit the health organization, 7% argue the opposite and only 4% refrained from answering. Closely related to the previous one, question no. 15 which investigates the economic benefit of the nursing prescription on the health organization. In this case, the majority of nurses, or 73%, replied that they do not see an economic benefit in perspective, contrary to the remaining 27%. The last question investigates the Nurse’s opinion regarding this figure and her pleasure in being able to specialize, after adequate training in this area. It can be seen that 80% of nurses are in favor of developing this figure also in Italy, while the remaining 20% are not.

Table 1: Answered Collected.

Sex	Male: 30% Female: 70%
Age	Until 18 years: 0% 19-25 years: 12% 26-35 years: 42% 36-50 years: 37% Over 50 years: 9%
Instruction level	Diploma: 21% Graduation: 79% Master’s degree: 0%
Acquaintance with the nurse prescriber	Yes: 38% No: 62%
Have you taken advanced courses in pharmacology?	Yes: 12% No: 88%
Do you have good knowledge in pharmacology?	Yes: 70% No: 30%
Do you know how to apply the knowledge to the various etiopathological sectors?	Yes: 55% No: 45%
Would patients be satisfied by the nurse prescriber?	Yes: 90% No: 10%
Would it give more autonomy to the profession?	Yes: 95% No: 5%
Would it have repercussions on the other repercussions?	Yes: 4% No: 96%
Would it benefit the health organization?	Yes: 89% No: 11%
Would it benefit the health economy?	Yes: 27% No: 73%
Would you specialize in post-graduate training?	Yes: 80% No: 20%

Discussion

From the data reported it is clear that in parallel with the development of the nursing figure at the international level, the Nurse in Italy always remains behind [12,13]. In recent years there has been a

great development of autonomy and nursing responsibility with the reference standards already mentioned above. To date, however, the nursing prescription in Italy still remains a utopia despite its widespread development in the rest of Europe and the world. The study carried out had the aim of deepening the figure of the nurse prescriber, but at the same time investigating the degree of interest of Italian nurses in this matter. Evident data shows that more than 50% of nurses were not aware of this figure, despite the fact that the topic of nursing prescription has found ample space for debate on the internet, forums and social networks for some time now. From the study, it emerges that the average age of nurses aware of the subject is 27 years, which we believe is a positive figure, because the desire of these young people to get information and to know what may be the new frontiers of the nursing profession is marked, without however, move away from its cardinal principles. Likewise, it was particularly reflective that 58% of the participants in the questionnaire highlighted their opinion in the suggestions on how and to what extent this figure can support the health organization. 37.9% said that this figure would facilitate the workload of doctors, improve team work and halve the expectations in the care processes and in the emergency department, managing those priority codes that do not require medical intervention. 34.6% believe that the development of nursing prescriptions would “enhance” the role and the figure of nursing making it more complete by increasing professional autonomy. On the other hand, 27.5% believe that the greatest improvement that this figure could bring is its presence in structures where the figure of the Doctor is not present 24 hours a day, or on the territory. It is common to believe that the prescriber family nurse would facilitate the patient or caregiver especially in the management of chronic diseases. Having seen that 37% of nurses believe that they would not be able to apply pharmacological knowledge to ethiopathological contexts, it could be useful to provide health professionals with specific training courses on the topics covered in this study. It would be interesting to start implementing, within the wards or associated nursing studios, the concept of the “nurse prescriber” whose real objectives are:

- Reduction in waiting times and greater access to primary and secondary basic medicine;
- Discharge of patients and decrease in access to the emergency rooms;
- improving access to care for patients with chronic diseases;
- Reduction of errors by having greater continuity due to the ability to both prescribe and administer the drug;
- More effective management of both surgical and vascular dressings;
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The primary objective therefore remains the health of the patient [14,15]. The hope for this study, certainly not exhaustive and with obvious limitations was considered as a starting point regarding the perception of professionals on the subject of “nursing prescription”. The vastness of the topic, the different ethical - deontological perspectives, the need to customize the assistance intervention, certainly suggest the opportunity for further study, extending the interviewed sample in quantitative terms.

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