

## **Estado de la prescripción por enfermería en la región Costa de Oaxaca**

***Current State of Prescription of Medications by Licensed Medical Nurses in the Costa de Oaxaca Region***

***Estatuto de prescrição por enfermagem na região da Costa de Oaxaca***

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### **Resumen**

La prescripción enfermera ha crecido significativamente en todo el mundo durante la última década. Recientemente en México se adicionó el artículo 28 Bis a la Ley General de Salud: ahí se enuncia que los licenciados en enfermería podrán prescribir cuando no se cuente con los servicios de un médico. A la fecha no existe ningún estudio a nivel nacional y mucho menos uno a nivel local que muestre el estado que guarda la prescripción por enfermería. Consecuentemente, el objetivo de este trabajo se centra en describir el estado de esta práctica en la región Costa de Oaxaca. Para ello se empleó un estudio de tipo cuantitativo, con un análisis descriptivo y de alcance transversal. La población estuvo constituida por 86 licenciados en enfermería adscritos a la Jurisdicción Sanitaria 04 Costa del estado de Oaxaca y que laboran en el primer nivel de atención. Y la muestra final constó de 11 licenciados en enfermería seleccionados por conveniencia. Se diseñó una encuesta con 10 preguntas y para el análisis de los datos se empleó el paquete estadístico SPSS versión 22, en donde se utilizaron las funciones de estadísticos descriptivos y respuestas múltiples.



De entre los resultados, 54.5 % de los participantes dijo contar con los conocimientos adecuados para realizar el diagnóstico correcto de la patología. Sin embargo, un idéntico porcentaje mencionó no haber escuchado nunca sobre el artículo 28 Bis de la Ley General de Salud, hasta que fue mencionado en la aplicación de la encuesta. Pese a ello, el total de los participantes prescribe en los centros de salud. El medicamento más prescrito fue el paracetamol (12.4 %). Por último, el total de los participantes estuvo de acuerdo en que el profesional de enfermería debe prescribir. A partir de lo anterior en este estudio se plantea que los licenciados en enfermería que laboran en el primer nivel de atención en centros de salud de la Secretaría de Salud de la región Costa del estado de Oaxaca sí prescriben y asumen dicha práctica como una función del gremio.

**Palabras clave:** investigación en enfermería, prescripción enfermera, primer nivel de atención.

## Abstract

The prescription of medications by licensed medical nurses has grown significantly worldwide during the last decade. Mexico recently added Article 28 Bis to the General Health Law, which states that licensed medical nurses may prescribe when they do not have the services of a doctor. To date there is no study at the national level and much less one at a local level which shows/demonstrates the state of prescriptions by nurses. Therefore, the objective of this work focuses on describe the current state of this practice in the Costa de Oaxaca region.

A quantitative study was used, with a descriptive analysis and cross-sectional scope. The population was constituted by 86 licensed nurses assigned to the Sanitary Jurisdiction 04 Coast of the state of Oaxaca and who work in the first level of attention. The sample consisted of 11 licensed medical nurses selected for convenience. A survey with 10 questions was designed and for the analysis of the data the statistical package SPSS version 22 was used, where the functions of descriptive statistics and multiple answers are used.

As part of the results, 54.5% of the participants said they had the adequate knowledge to make the correct diagnosis of the pathology. Likewise, a 54.5% of the participants mentioned that they had never heard about Article 28 Bis of General Health Law, until it was mentioned in the application of the survey. 100% of the participants prescribe medication in the health centers. The



most prescribed medication was paracetamol (12.4%). And 100% of the participants mentioned that the nursing professional should prescribe.

Based on the results obtained in this study, it is proposed that licensed nurses who work in the first level of care in health centers of the Secretary of Health of the Costa region of the state of Oaxaca, prescribe medication and assume this practice as a function of the profession.

**Keywords:** nursing research, nurse prescribing, primary level of healthcare.

## Resumo

A prescrição de enfermagem tem crescido significativamente em todo o mundo durante a última década. Recentemente, no México, o artigo 28 Bis foi acrescentado à Lei Geral de Saúde: afirma que os graduados em enfermagem poderão prescrever quando não tiverem os serviços de um médico. Até o momento não há estudo em nível nacional e muito menos um em nível local que mostre o estado que mantém a prescrição pela enfermagem. Consequentemente, o objetivo deste trabalho é descrever o estado dessa prática na região da Costa de Oaxaca. Para tanto, foi utilizado um estudo quantitativo, com uma análise descritiva e um escopo transversal. A população foi constituída por 86 egressos em enfermagem lotados na Jurisdição Sanitária 04 Litoral do estado de Oaxaca e que atuam no primeiro nível de atenção. E a amostra final consistiu de 11 graduados em enfermagem selecionados por conveniência. Uma pesquisa com 10 questões foi elaborada e para a análise dos dados foi utilizado o pacote estatístico SPSS versão 22, onde foram utilizadas as funções de estatística descritiva e respostas múltiplas.

Entre os resultados, 54,5% dos participantes disseram ter o conhecimento correto para fazer o diagnóstico correto da patologia. No entanto, uma porcentagem idêntica mencionou nunca ter ouvido falar sobre o artigo 28 bis da Lei Geral de Saúde, até que foi mencionado na aplicação da pesquisa. Apesar disso, o número total de participantes prescreve nos centros de saúde. O medicamento mais prescrito foi o paracetamol (12,4%). Por fim, o total de participantes concordou que o profissional de enfermagem deve prescrever. Pelo exposto, neste estudo, afirma-se que os graduandos de enfermagem que atuam no primeiro nível de atenção em centros de saúde do Ministério da Saúde da região da Costa do estado de Oaxaca prescrevem e assumem essa prática em função do guilda



**Palavras-chave:** pesquisa em enfermagem, prescrição de enfermagem, primeiro nível de atenção.

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## Introduction

The nursing prescription is the ability of the nurse, within the framework of the management, evaluation and provision of nursing care, to "select, guided by professional criteria, different materials, products, devices and medication aimed at meeting the needs of health of the user and the population, supported by the clinical judgment of nurses and administered in the form of care "(General Council of Nursing, nd). Bulechek and McCloskey (1992) cited in Dandicourt, Martínez and Velásquez (2011) define it more generally as any direct care that the nurse performs for the benefit of the person; This direct care includes treatments initiated by the nurses, treatments initiated based on the medical diagnosis and daily activities essential for the person.

The prescription of nursing has grown significantly worldwide during the last decade, due to the efforts of different actors that have been reflected in the development of substantial reforms of laws and policies that have encouraged and supported nurses to assume roles of Prescription in both areas of care and community health. Consequently, the role of nursing in the administration of medicines is currently undergoing a major transformation (Bellaguarda, Nelson, Padilha and Caravaca, 2015).

Said practice complies with the dictates of the current regulations of each country or even of each state or province. According to the Royal College of Nursing (2014), in the United Kingdom the nursing prescription has grown significantly during the last decade thanks to the more than 54,000 prescribing nurses and midwives, who, according to the National Health System, prescribed 12.8 million medicines and health products from January to March 2010. In addition, in 2006, prescribing nurses had full access to the British National Formulary, which has put them on a par with doctors regarding prescriptive capacity. To qualify as a prescriber, nurses must accredit a course recognized by the Board of Nursing and Obstetrics (NMC) at one of the universities in the United Kingdom. The evidence in this territory shows that the nursing prescription improves



patient care, guarantees timely access to medicines and treatments and increases the efficiency of medical services, which results in a longer time for patient care. with more complex health care needs. All this is supported by patients, who report a high level of satisfaction and confidence in the nursing prescription.

In Sweden, the prescription emerged in 1988 as an alternative to guarantee health care and access to drugs in very remote geographical areas that are difficult to access, in the context of a national health service where the density of nursing professionals is high. In 1997, the Swedish Government evaluated the prescriptive practices of district nurses. When positive results were obtained, it was decided to extend the prescription authority to the nurses who work with the local authorities in the care of the elderly. In this country, midwives use both independent and collaborative models to practice this practice, most preferably in family planning with the prescription of oral contraceptives (Fernández, 2016, Dandicourt et al., 2011).

In Spain, a fundamental career has begun to repeal Royal Decree 954/2015, which limits the participation of nurses and nurses in the pharmaceutical provision of the health system and has had almost unanimous professional rejection. It is necessary, therefore, to modify the Law of Medicine through the publication of a royal decree that allows the development of the nursing prescription in each of the health systems that make up the National Health System of Spain, since without it the Spanish nurses they will not be able to advance in this type of actions within the pharmaceutical provision in their corresponding health services. However, there is an exception in the Spanish state: the case of the autonomous community and the Public Health Service of Andalusia (SSPA), which published a decree thanks to which nurses in Andalusia can: 1) use and indicate medicines that do not they need a prescription and prescribe health products and 2) perform collaborative prescription (intervention on dosage, frequency and suspension of the drug) for the individualized follow-up of pharmacological treatments linked to care processes. Among some interesting results obtained by the nursing professionals in the SSPA, the following stand out: 7600 nursing professionals who perform independent prescription; 61% of medical devices have been prescribed by nurses (up to 80% have been reached in some areas and health districts of primary care); In relation to collaborative prescription, four protocols for nurse pharmacological monitoring have been published for people with chronic diseases (vascular risk, oral anticoagulation, palliative



sedation and diabetes) in which 173 nurses have been accredited so far and another 570 are in accreditation process (Rodríguez, de la Fuente, Casado and Ayuso, 2015).

In Canada, generalist nurses, that is, licensed nurses with more academic training and experience, who have and demonstrate the necessary competences to act autonomously in the diagnosis, requisition and interpretation of diagnostic tests, are those that can legally prescribe medications and perform specific procedures within its scope of practice. Just to mention a case, in the province of Ontario this activity is carried out in all areas of nursing practice. In hospitals, a nursing professional has -according to the distribution of patients or internal regulatory mechanisms of health institutions- a group of patients under their responsibility, so that the entire process of diagnostic research and treatment is defined by this professional. The interprofessional limits in the health system are based on interprofessional and collaborative communication. Thus, the practice of nursing is recognized as a complementary action by another health professional and not as practical support. The bill number 179/2009 extends the autonomy of nurses generalists in terms of prescription drugs, additional legal authority, and admission and discharge of patients within specific areas of health care and professional knowledge (Bellaguarda *et al.*, 2015).

In the United States of America, nurses prescribe as part of an advanced practice since 1997. Although the level of prescribing authority depends on the legislation of each state, it is generally stated that they must be registered at the national level (Dandicourt *et al.*, 2011 ).

In Cuba, for its part, in 2008 a document called Regulation of Nursing Practice was approved and put into effect at all levels of the national health system, which reflected the beginning of the nursing prescription. This document declares decision making, control and execution by administering analgesic and antipyretics among some of the care functions of the graduate and specialist in nursing; decision and execution in the placement and permanence of the nasogastric tube in the presence of vomiting; decision and execution in the placement and permanence of the bladder catheter in collaboration with the doctor according to the case; use of solutions and other elements during wound cures, concurrent and terminal disinfections (Dandicourt *et al.*, 2011).

In Brazil, the practice of nursing prescription began in 1990 and has had a real expansion and applicability since 2006. This practice follows protocols that specify the drugs that nurses can prescribe. As part of primary health care, nurses carry out pre-programmed nursing consultations





throughout the health system and attend to specific areas, such as the area of women's health, adult and elderly health, health children and adolescents and groups related to specific chronic diseases, namely diabetes, hypertension and others. The clients of health services first receive the nursing consultation and then they are referred to a doctor when necessary (Bellaguarda et al., 2015).

In the case of Mexico, on February 7, 2012, the Chamber of Deputies approved with 256 votes in favor, 15 against and 6 abstentions the opinion that empowers nurses to prescribe medical prescriptions to patients, with which guarantees that patients have access to their medications through a medical prescription prepared by a professional in that field (Pacheco, 2012). The plenary endorsed the addition of article 28 Bis to the General Health Law and its publication in the Official Gazette of the Federation (DOF). This article states that "Nursing graduates (...) can only prescribe when they do not have the services of a doctor, those drugs from the basic table determined by the Ministry of Health" (DOF, 2012).

In addition to the above, recently in the DOF the procedure and criteria to which nursing graduates and social service interns must be subject to prescribe medications have been published. In said agreement it is stated that they must use the institutional recipe format that the institution in which they provide their services provides for that purpose. Likewise, it is specified that in those cases in which a doctor, homeopath or dental surgeon is not found in the primary health care establishment that can perform the assessment, diagnosis and corresponding prescription, the nursing graduates may prescribe a total of 93 medicines corresponding to the Basic Chart of Health Sector Supplies (DOF, 2017).

To satisfy the great need in this area, the Mexican Network of Nursing in the Prescription of Medicines was consolidated, made up of associations, societies, schools, federations, schools, universities, the National Polytechnic Institute (IPN), the Mexican Institute of Social Security (IMSS), the Institute of Security and Social Services of State Workers (Issste) and a large group of independent nursing professionals (Pérez, 2013). It should be noted that this association held the first national meeting regarding the reform mentioned above: "Evidence of Care of the Faculty for the Prescription of Drugs by Nursing Professionals", based at the Autonomous University of Chihuahua, with the objective to achieve an in-depth analysis and training of professionals in this area in Mexico (Núñez, 2014).



Currently, the Permanent Nursing Commission works on an initiative that specifies the attributes and responsibilities that must be fulfilled by the nursing professional, in accordance with the legal provisions, regulations, as well as the fundamentals of clinical pharmacology required to execute a prescription. of safe medications (Pérez, 2013).

In our country, the nursing professional prescribes independently in the treatment of skin lesions (wounds, burns or pressure ulcers), prescribes vaccines, micronutrients, contraceptives, oral serum life, non-steroidal anti-inflammatories, products for urinary incontinence, etc. . These are cases in which protocols previously established by a multidisciplinary team are followed to make decisions based on permanence and constant contact with patients (Cerezo, Espinoza, Techalotzi, and Tlalpan, 2016, Pérez, 2013).

When it comes to prescription, it tends to be framed in the capacity of doctors and not in that of other health professionals; therefore, a reduction of this exercise is made, as well as the extension of recipes. This idea is still present in our times. The following is an example: when preparing and designing a proposal for a nurse prescription, Cerezo et al. (2016) noted that for a group of nursing professionals with a university degree, the conceptualization of the term nurse prescription was confusing, and they did not agree with what was discussed here, since, in their opinion, the prescription is part of the doctor's work and not the nurse; the prescriptions, they stressed, are only written by the doctor, and that the nursing area is responsible only for the care and only by medical indication.

However, the nursing prescription has a place in the activities of the profession, since this includes any direct care that the nursing professionals perform for the benefit of the patients. This practice is an important part in the professional development of nursing and connects with care plans; it is, even, a logical consequence of them. In this sense, it can be said that the prescription forms an intrinsic part of the nursing work that matches the social demands of the population, a growing advancement of the profession and, therefore, changes in the professional role, a greater profile and the realization of advanced functions in practice (Dandicourt et al., 2011).

However, for the development of prescriptive nursing authority, an integrated approach is needed that takes into consideration the following:





- 1) Regulatory aspects. For example, to ensure legislation that authorizes nurses to prescribe, the type of training to have prescriptive authority, the drugs or drugs that may be prescribed; In short, we need legal tools that are autonomous and independent of the discipline that manage to integrate pharmacological management for the benefit of the patient.
- 2) The competences to develop the function. It is necessary that the nursing professional be qualified to prescribe certain drugs and to prescribe health care; he must know how to incorporate, through professional criteria, different health products, accessories and drugs aimed at satisfying the patient's health needs; it needs capabilities that allow it to combine functions with the rest of the health team.
- 3) The necessary training to equip nurses with the desired competencies. Professional care means diagnosing and treating health problems, which require knowledge, attitudes and skills that are only acquired through systematic and orderly studies. The nursing professional has the obligation to update day by day in the knowledge and technical skills of his specialty, in order to offer his patient the best possible care, through the continuous study of the advance of drugs, the medical-scientific literature, attendance at specialized courses, at conferences and other professional meetings, academic sessions or collegial associations (Dandicourt *et al.*, 2011; Cerezo *et al.*, 2016).

Research on this is scarce. The tasks of prescribing drugs by nursing have been described (Céspedes, Bedoya and Palacios, 2010), the performance of nurses in the prescription of hormonal contraceptives (Dombrowski, Pontes and Assis, 2013), the benefits of nurse prescription (Vidal , Torres and Carmena, 2016), etc ... However, despite the fact that the prescription by nursing was approved in 2012 in Mexico, until now no bibliographic material has been found that shows the results of the applicability of said law or that exposes the factors that determine this practice. To date there is no study at the national level, let alone one at the local level, that shows the state that keeps the prescription by nursing.

On the other hand, the topics of the nurse prescription are a challenge for the union; they must be attended opportunely by the organisms (associations, schools and societies) to monitor the practice that, without a doubt, will impact on the development of nursing in Mexico (Pérez, 2013). This demonstrates the need to generate a framework of reference in this regard to improve this



professional practice. Therefore, the present study aims to describe the status of prescribing by nursing in the Costa de Oaxaca region.

## Materials and methods

The present study was of quantitative type, with a descriptive analysis and of transversal scope. The population was constituted by 86 graduates in nursing assigned to the Sanitary Jurisdiction 04 Coast of the state of Oaxaca and who work in the first level of attention; In the population, those who work in Health Centers with Expanded Services (CESSA) and urban health centers were not considered. The final sample for this study consisted of 11 nursing graduates selected for convenience.

A survey was designed with 10 questions grouped into three sections that were created taking into account Dandicourt et al. (2011), who mention that for the development of prescriptive nursing authority, an integrated approach is needed that takes into consideration the following points: 1) aspects of regulation, 2) competences to develop the function and 3) training necessary to equip nurses with the desired competencies. In addition, an extra group was included (circumstances and frequency with which it is prescribed) to complement this information, since clinical practice is a fundamental component in the nursing teaching and learning process; It is what is called knowledge in action. This knowledge will allow the nursing professional to solve situations that arise in the future (Tesa, 2014).

The present investigation was carried out in accordance with the provisions of the General Health Law on Health Research, and an informed consent was used, which the participant signed by agreeing to participate.

For the analysis of the data, the statistical package SPSS version 22 was used, where the functions of descriptive statistics and multiple responses were used.



## Results

The surveys were collected from April 12 to May 25, 2017 in 10 health centers belonging to the 04 Costa Sanitary Jurisdiction. A total of 11 nursing graduates participated: 10 women and 1 male. In figure 1 you can see a map of the Costa region of the state of Oaxaca; there, by means of points, the medical units in which the nursing graduates who participated in this research work are shown. As can be seen, the medical units of five participants are located in the district of Jamiltepec, two in the district of Juquila and four in the district of Pochutla. The oldest participant was 48 years old and the youngest was 22 years old, the average age was 35.09 years. The total of the participants confirmed their studies as Lic. In Nursing: 54.5% did their studies in the Academic Unit No. 3 of Ometepec Guerrero, belonging to the Autonomous University of Guerrero (UAGro); 18.2% in the Institute of Sciences and Superior Studies of Tamaulipas; 9.1% in Academic Unit No. 2 of Acapulco Guerrero, belonging to the UAGro; 9.1% at the University of Querétaro, and 9.1% at the College of Studies and Specialties of the State of Oaxaca.

**Figura 1.** Centros de Salud donde laboran los participantes



Nota: En el mapa de la región Costa y de izquierda a derecha, primero aparecen los centros de salud pertenecientes al distrito de Jamiltepec, luego aparecen los que se encuentran en Juquila y, por último, los de Pochutla.

**Fuente:** Elaboración con base en imágenes obtenidas de Google



According to the operationalization of the variables, the results are as follows.

### **Levels of knowledge indispensable for the prescription (competences and training)**

In the level of preparation in terms of pharmacology, the results show that the subjects related to pharmacology that were studied during the career are the following: Pharmacology 1 (33.3%), Pharmacology 2 (22.2%), Alternative Medicine (7.4%), Biology 1 (3.7%), Biology 2 (3.7%), Diet Therapy (3.7%), Nutrition (3.7%), Physiology (3.7%), Anatomy (3.7%), Teaching (3.7%), Etymologies (3.7%), Pediatric Nursing (3.7%) and Health in the Community (3.7%). On the other hand, 99.9% of the participants mentioned not having received any update course in pharmacology. In terms of knowledge related to the correct diagnosis of the pathology, 54.5% of the participants said they had the appropriate knowledge, compared to 18.2% who said they did not have the appropriate knowledge and 27.3% said they did not know if they had the appropriate knowledge to make the correct diagnosis of the pathology. With respect to the understanding of article 28 Bis of the General Health Law, 54.5% of the participants mentioned that they had never heard about said article until it was mentioned in the survey application.

### **Circumstances and frequency with which it is prescribed**

In relation to the areas in which it is prescribed, 100% of the participants prescribe in the health centers with 107 prescriptions per month, an average of 9.73 prescriptions and a standard deviation of 11.288 (table 1).



**Tabla 1.** Ámbitos de prescripción enfermera

Lugar de prescripción	Número de participantes	Porcentaje de prescripción	Total de prescripciones al mes
Centro de Salud	11	68.8 %	107
Hogar	3	18.8 %	7
Consultorio de enfermería	1	6.3 %	10
Farmacia	1	6.3 %	20
Total		100 %	144

**Fuente:** Elaboración a partir de resultados obtenidos por SPSS versión 22.

The three most attended diseases are the following: acute respiratory infections (17.8%), diabetes (15.6%) and acute diarrheal diseases (13.3%) (see table 2).



**Tabla 2.** Patologías en las que se prescribe

Patologías	Número de veces por mes	Porcentaje
Infecciones respiratorias agudas	8	17.8 %
Diabetes	7	15.6 %
Enfermedades diarreicas agudas	6	13.3 %
Hipertensión	5	11.1 %
Infección de Vías Urinarias	4	8.9 %
Fiebre	3	6.7 %
Faringoamigdalitis	3	6.7 %
Salmonelosis	1	2.2 %
Fiebre tifoidea	1	2.2 %
Parasitosis	1	2.2 %
Infección de garganta	1	2.2 %
Planificación familiar	1	2.2 %
Gastritis	1	2.2 %
Lumbalgia	1	2.2 %
Dengue	1	2.2 %
Reacciones alérgicas	1	2.2 %
Total	45	100 %

**Fuente:** Elaboración propia.

The three most commonly prescribed medications are paracetamol (12.4%), metformin (6.7%) and captopril (6.7%) (see Table 3).





**Tabla 3.** Fármacos prescritos

<b>Fármaco</b>	<b>Número de participantes que lo prescriben</b>	<b>Porcentaje</b>
Paracetamol	11	12.4 %
Metformina	6	6.7 %
Captopril	6	6.7 %
Glibenclamida	5	5.6 %
Ampicilina	5	5.6 %
Clorfenamina	4	4.5 %
Amoxicilina con ácido clavulánico	4	4.5 %
Loratadina	3	3.4 %
Naproxeno	3	3.4 %
Diclofenaco	3	3.4 %
Trimetoprima con sulfametoxazol	3	3.4 %
Ambroxol	3	3.4 %
Metronidazol	2	2.2 %
Albendazol	2	2.2 %
Metoprolol	2	2.2 %
Omeprazol	2	2.2 %
Cefalexina	2	2.2 %
Electrolitos orales	2	2.2 %
Ketorolaco	2	2.2 %
Enalapril	2	2.2 %
Ácido acetilsalicílico	1	1.1 %
Propranolol	1	1.1 %
Hidróxido de aluminio	1	1.1 %
Hidróxido de magnesio	1	1.1 %
Ranitidina	1	1.1 %



Eritromicina	1	1.1 %
Miconazol	1	1.1 %
Isoconazol	1	1.1 %
Clioquinol	1	1.1 %
Nifedipino	1	1.1 %
Lidocaína	1	1.1 %
Butilhioscina	1	1.1 %
Penicilina	1	1.1 %
Ciprofloxacino	1	1.1 %
Ácido fólico	1	1.1 %
Fumarato ferroso	1	1.1 %
Dicloxacilina	1	1.1 %

**Fuente:** Elaboración propia.

### **Legal and operational factors of the prescription (regulation)**

With respect to what they thought of article 28 Bis of the General Health Law, 81.8% of the participants mentioned that it should not disappear and 18.2% mentioned that it should be modified. Regarding the bioethical and legal implications of the nursing prescription, all the participants mentioned that the nursing professional should prescribe.

### **Discussions**

Prescription by nursing is a novel subject and needs to be disseminated by the health authorities, since 54.5% of the participants mentioned that they had never heard about Article 28 Bis of the General Health Law, but until it was mentioned in the application of the survey; Therefore, it is necessary to know the legal framework so as not to engage in negative actions; that is to say, acts that derive in negligence, imprudence and lack of skill (Balseiro, Osuna and Javier, 2017).



There are 11 drugs that participants prescribe and that are not in the agreement issued by the DOF on March 8, 2017, which mentions precisely the drugs that may prescribe, which are metoprolol, propranolol, aluminum hydroxide, omeprazole, cephalexin, isoconazole, clioquinol, nifedipine, lidocaine, ketorolac and ciprofloxacin; Therefore, it would be advisable to expand the number of drugs prescribed by nursing graduates.

The Mexican Network of Nursing in the Prescription of Drugs, mentioned by Pérez (2013), has not had any type of impact on the nursing professionals of the Costa de Oaxaca; It does not even have an official website on the Internet. Taking into account the lack of training in pharmacology, since more than 90% of the participants mentioned not having received any updating course in pharmacology, a figure similar to that found by Céspedes et al. (2010), who report that 89.6% of the respondents perceive training in pharmacology as a need, urges the Ministry of Health, together with the Permanent Commission of Nursing, to implement continuing education on nursing prescription to improve the attributions that the The Mexican state has delegated to the nursing professional in search of greater empowerment of the union that makes up.

Therefore, it should be considered that, in order to prescribe medications, nursing graduates will have to have continuous training and updating in pharmacology that allows professional activities to be carried out safely and without risks for patients. (Balseiro et al., 2017).

It should be emphasized that Nursing Now, the campaign that is attracting the attention of nursing professionals from around the world, in its fourth objective to be reached in 2020 proposes "more nurses in leadership positions and more opportunities for development at all levels" . It is sad to say, but there is not a nurse in Mexico who assumes the leadership position in nursing prescription; It is necessary to support the nursing professional to lead, learn and use all their potential in the prescription (Nursing Now, 2019, Ministry of Health, 2018). This campaign should have an impact on the professionals of the Costa de Oaxaca area, who perceive prescription as a function of the union, since all of the respondents mentioned that the nursing professional should prescribe; in contrast with Céspedes et al. (2010), who refer that 62.9% of their respondents do not recognize the prescription as part of the work of their profession.



It is proposed to improve the study, obtain a representative sample that allows establishing relationships between variables through a validated instrument. Also, include nursing graduates who work in rural medical units belonging to the IMSS-Bienestar. The present research is unique in its kind in Oaxaca and aims to serve as a reference framework for implementing health policies in the Costa region. The lack of budget to access the health centers of the participants, the lack of linkage with other researchers, as well as the lack of a validated instrument in Mexico is noted as weakness.

## Conclusions

Based on the results obtained in this study, it is stated that the nursing graduates who work in the first level of care in health centers of the Ministry of Health of the Costa region of the state of Oaxaca do not know Article 28 Bis of the Law General of Health, and despite this, prescribe and assume this practice as a function of the guild. The prevailing need to establish continuing education on nursing prescription is established, as well as operational guides, manuals, etc .; implement the bases for organized operationalization; and continue to reform on the subject and in accordance with the needs of the profession and the population.

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