

Creating a desired future for pharmacy education and professional practice in Argentina: Summary of a planning workshop

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Abstract

The need to know the current state of professional practice in Argentina in different areas, and the absence of systematic information about it, led to the organisation of a workshop with pharmacists from several different practice settings. The workshop provided a space for reflection and dialogue for the participants committed to improving pharmacy education and professional practice in Argentina.

The objective of this report was to document the main points from this workshop; which allowed the participants to reinforce their identity as pharmacists, review health policies in Argentina and identify the strengths and weaknesses of pharmacy education and professional practice in order to work on the gaps observed.

A list of future actions to be implemented in the work setting was drawn up and the representatives who would allow the implementation of necessary action plans and who expressed their commitment to act upon them were identified. This experience highlighted the need to strengthen the professional role of the pharmacist and demonstrated that this type of activity could contribute to pharmacy education and professional practice, and would allow the gathering of useful information for future guidelines to bring about the necessary changes for improvement of patient care.

This report aims to share the results of the activities performed that reflected the present situation and the need for change. By transmitting their experience, the authors will allow others to replicate and adapt it to different contexts. This report contributes to the global knowledge regarding issues that impact pharmacy practice from the Argentinian perspective.

Keywords: *Education, Health, Medication Use, Pharmacy, Social Role*

Introduction

In Argentina and Latin America health systems' reforms due to the economic crisis have changed not only health and medication policies, but also the practice of pharmacy. In this context, the global redefinition of the role of the pharmacy profession as a patient-oriented occupation requires a review of pharmacy education and practice in order to best respond to the health needs of a region (International Pharmaceutical Federation [FIP], 2012). The assessment of professional practice in all care settings, including those of the pharmacists, facilitates the identification and analysis of the aspects that need to be changed (FIP, 2014). The promotion of professional training and the commitment of professionals to society has led to provision of a better health service and helped strengthen recognition of the profession.

The need to know the current state of professional practice in the different practice areas, and the absence of systematic information about it, led to the organisation of a workshop with pharmacists from different settings. In the city of Córdoba on 25th and 26th August 2016, a workshop titled 'Creating a Desired Future for Pharmacy Education and Professional Practice' was held. It was organised by members of the academic staff of the pharmacy programme and of the postgraduate specialisation area of Hospital Pharmacy, Faculty of Chemical Sciences, National University of Córdoba (FCQ-UNC in Spanish). The aim of the workshop was to provide a space for reflection and constructive dialogue for the participants interested in, and committed to, substantially improving pharmacy education and professional practice in Argentina and the region.

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The objective of this report is to articulate the main discussion points and outcomes of the workshop. Further, the authors discuss the processes used in the workshop in order to achieve the articulated outcomes. This report also aims to share the results of the activities performed that reflected the present situation and the need for change, through a participatory dialogue.

Design and development

The complete information related to the workshop was published in the official websites of the FCQ-UNC, the Ministry of Health of the Province of Córdoba and the Pharmacists Association of Córdoba. In addition, from the FCQ's databases, invitations were sent to potential interested parties, including pharmacists and students, requesting the disclosure of this information through their contacts.

The workshop was held over two full working days, with three interrelated parts, and culminated in a panel presentation by representatives from different pharmacy settings. The planned flow of the workshop is described in Figure 1.

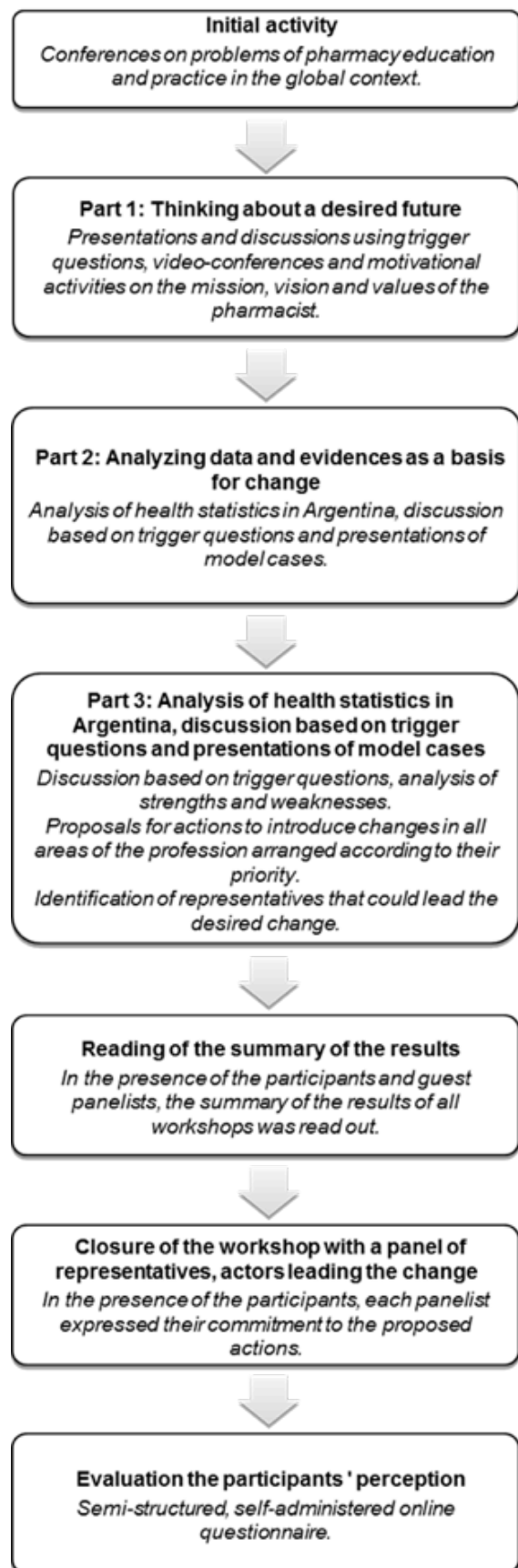
Each part of the workshop was assigned to staff members who were in charge of the coordination of the respective session. Additionally, the coordinators were trained to lead the discussions. For this, the complete staff met on several occasions during the training phase, with the aim of adjusting the information requirements and the methodology, focused on the intended activities and time management. Before the workshop was held, a pilot was conducted with professionals from the Ministry of Health of the Province of Córdoba, the Pharmacists Association of Córdoba and the postgraduate area from the FCQ-UNC. The participants' comments were used to revise the programme flow and content plan before its implementation.

The objectives of Part 1 were: (i) to reflect on the mission of pharmacists and the vision of the profession, the current role of the pharmacist in different pharmacy settings (by comparison with international standards) and the values required for optimal professional performance; (ii) on the basis of this analysis, to envision the future of the profession from positive, negative and neutral perspectives. For that, a series of triggering questions were created and the participants' responses were noted.

The objectives of Part 2 were: (i) to contextualise health indicators of Argentina; (ii) to recognise opportunities for the intervention by the pharmacist to make a tangible improvement in the population's health from the different pharmacy settings; and (iii) to reflect on how to achieve national and global health goals in the near future.

Morbidity and mortality, risk factors and prevalent diseases were selected as relevant health indicators in Argentina. In addition, infant, child and maternal mortality were chosen as health indicators to monitor the progress towards United Nations (UN) millennium goals (UN, 2016) (Argentina adhered to the millennium

Figure 1: General structure of the workshop



goals in 2000 (ODM Argentina - ONU Argentina, 2016)). Official information was obtained from the web site of the National Center for Health Statistics (Secretaría de Políticas Regulación e Institutos & Dirección de Estadísticas e Información de Salud, 2015).

As an indicator of access to medicines, the existence of public healthcare programmes dedicated to achieving the above objectives were verified by consulting the Ministry of Health's official website (Ministerio de Salud, 2017).

Each member of staff working as facilitators in the workshop analysed and processed the information obtained, and presented it for discussion to the rest of the facilitator group, using multimedia support. This presentation was performed in order to select the main data and information to be summarised as a brief text and to be presented to the participants, and discussed as one of the activities proposed in Part 2 of the workshop.

The objectives of Part 3 of the workshop were to consider the role of the pharmacist in different pharmacy practice settings to meet the healthcare needs of the population and to ensure safe, accessible and effective pharmacotherapy. This effort attempted at the same time to analyse the current state of pharmacy education and practice and to propose an action plan for a better alignment between professional practice, pharmacy education and the needs of society. To achieve this, a brainstorming session was conducted to answer the question "What actions would be necessary to bring about a change in each setting of professional practice?" The coordinators grouped the actions and showed them to the audience for their consideration. A round robin was conducted to obtain individual opinions, which were used to prioritise the proposals by groups. Later, participants agreed on a list of public and private organisations that should be involved in implementing the actions proposed.

The summary of the results of the workshop was read out in the presence of the participants. For this instance, representatives from the national and local (Province of Córdoba) Ministry of Health, the Pharmacists Association of Córdoba, the deans of the Faculties which offer the degree in Pharmacy in Córdoba, Argentina, and the Coordinating Body of the Academic Institutions of Pharmacy and Biochemistry (ECUAFyB in Spanish) were invited to attend the workshop as panelists.

A voluntary semi-structured, self-administered and anonymous online questionnaire was used to obtain socio-demographic information of the participants and their perception regarding the fulfilment of the objectives of each part of the workshop, and of the general objectives. The complete questionnaire was made using the Google Forms platform, which allows the immediate analysis of the data (see Appendix). At the end of the workshop, the questionnaire was sent to all the participants' email addresses obtained from the registration form. A reminder was sent after a week and one month was given to respond. The statistics obtained from the questionnaires were analysed considering the responses of the participants. Additionally, the

information obtained in the spreadsheet was broken down into sub-groups (students and professionals) for further analysis.

Results

The workshop was attended by 45 participants, of whom 67.7% were professionals (practitioners and academics) and 32.3% were advanced students. The event was attended by representatives from the community, institutional, industrial, regulatory and academic areas of pharmacy. General demographic characteristics of the respondents are presented in Table I.

Table I: The demographic characteristics of the 31 respondents

Demographic categories	Students 10 (32%)	Professionals 21 (68%)
Gender		
Female	22.58	58.1
Male	9.68	9.68
Age (years)		
18-24	19.35	-
25-34	12.90	29.03
35-44	-	19.35
>45	-	19.35
Place of residence		
Argentina	35.71	64.29
Chile	-	100
Professional practice field^a		
Community	NA ^b	17
Hospital	NA ^b	14.29
Industrial	NA ^b	10
Research and development	NA ^b	57.14
Education	NA ^b	90.48
Regulatory	NA ^b	4.76

NA: not applicable; ^aThe sum of the percentage is greater than 100% because some participants perform in more than one field; ^b In this item only the field of the respondent professionals was considered

Part 1: Thinking about a desired future

The several activities performed are summarised in Figure 2 and the results obtained from the discussions are described in detail below.

With regard to the trigger questions on the mission of the pharmacist (Table II), (FIP, 2012), the participants agreed that pharmacy is an ancient profession that has emerged from the need to use medicines to treat health problems. Therefore, it is essential that 'someone' be empowered to deal with the design, manufacturing, quality control,

Figure 2: Activities performed in Part 1 “Thinking about a desired future”



distribution and monitoring of medicines, patient care, pharmacotherapy follow-up, health promotion and training of future professionals. Although this is in agreement with the components of the FIP pharmacist's mission (Table II), the participants felt that in daily practice a segment of society does not take into account the importance of the pharmacist's role due to certain deficiencies in pharmacy practice, such as:

- Depersonalised attention: on occasions, the dispensing of medications is performed by non-qualified employees instead of clearly identified pharmacists. This is due to the administrative burden and economic reasons.
- Commercial image of the pharmacy: pharmacies appeal to the use of promotions and advertising of products as a marketing strategy, instead of promoting their professional services.
- Inappropriate use of technical language (colloquialisms that twist the meaning of technical words).
- Weaknesses in communication strategies (without taking care of patient's individual needs).
- Isolation from peers and demotivation (perception of colleagues as economic competitors results in a lack of inter-professional relationships).

On the other hand, some considered that the lack of professional identity and recognition by other members of the healthcare team contributes to this perception. In addition, some participants stated that technological advances could contribute in the future to the displacement of the pharmacist in some settings.

The values that pointed to the most relevant issues related to professional practice were: social commitment, professionalism, honesty and responsibility. The need to enhance communication and encourage the formation of intra- and inter-professional teams was also stressed.

Table II: The mission of pharmacy practice according to the Joint FIP/WHO Guidelines on Good Pharmacy Practice: Standards for Quality of Pharmacy Services (2012)

<p>The mission of pharmacy practice is to contribute to health improvement and to help patients with health problems to make the best use of their medicines.</p> <p>There are six components to this mission:</p> <ul style="list-style-type: none"> • Being readily available to patients with or without an appointment; • Identifying and managing or triaging health-related problems; • Health promotion; • Assuring effectiveness of medicines; • Preventing harm from medicines; and • Making responsible use of limited healthcare resources.
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Regarding the trigger questions on the vision of the profession, the optimistic perspective involved improvement in all settings of professional practice, highlighting required changes in education and patient care. With regard to education, participants wanted content related to pharmaceutical care and to the formation of multidisciplinary health teams to be included in the first years of the course of study. As far as patient care is concerned, also desirable would be the redesign of pharmacy services regardless of the economic impact, and moving away from the commercialisation of medicines in order to achieve better public recognition of the profession.

Analysing the future of the profession from a negative perspective, professionals were skeptical about the possibility of change and found themselves facing current challenges, such as outdated educational practice, lack of interest in continuing education, and greater loss of professional identity. Furthermore, they believed that the pharmacist could be replaced by other lesser trained workers or automated systems.

With respect to the neutral viewpoint, an outlook similar to that of the present day was mentioned, stressing individualism, lack of interest and professional isolation.

Part 2: Analysing data and evidence as the basis for change

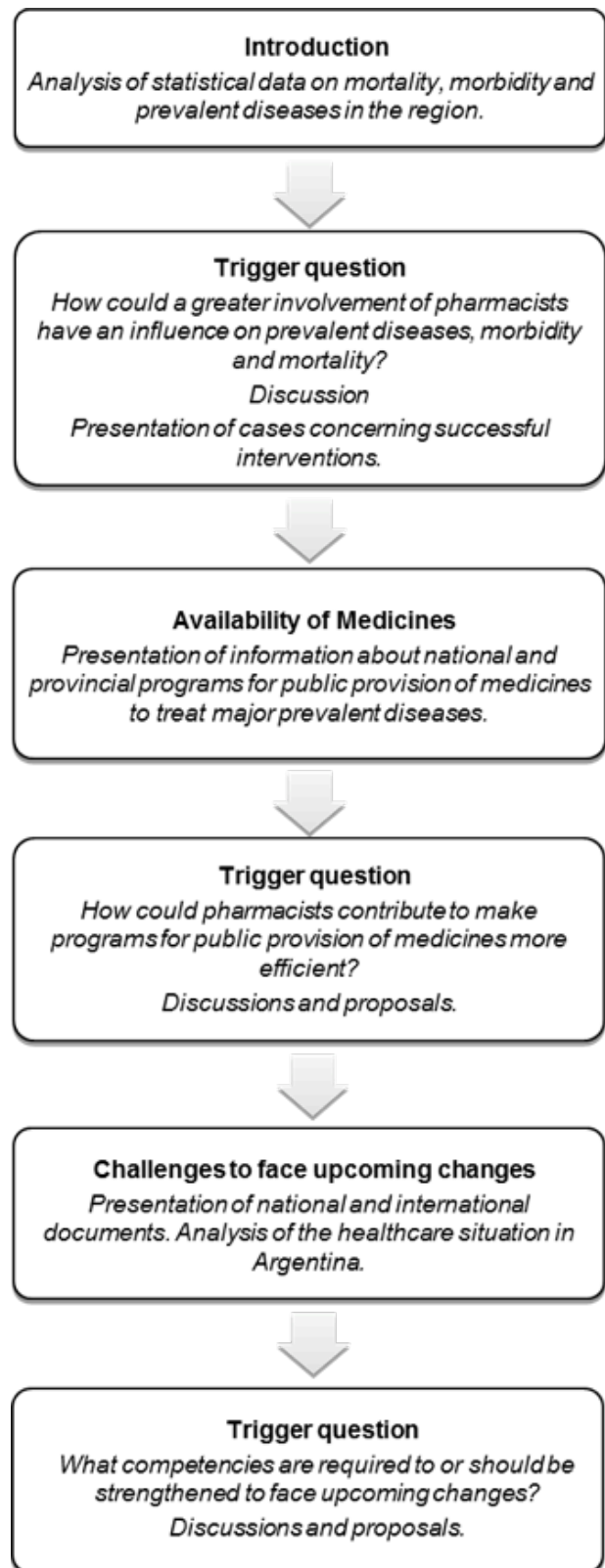
The activities performed are summarised in Figure 3 and the results obtained from the discussions are described in detail below.

In this part of the workshop, the participants analysed the document containing the information on health indicators in Argentina. Mortality data, updated to 2014, show that in the last decade cardiovascular diseases and cancer represent approximately a half of all the deaths in the country, with prevalences of 20.9% and 20.10%, respectively. High blood pressure, cholesterol and glycaemia are the risk factors associated to the above-mentioned diseases, which combined with unhealthy dietary habits and sedentary lifestyle, negatively affect the population's health. On the other hand, from 1990 to 2013 infant, child and maternal mortality ratios dropped to 54.2%, 54.5% and 38.5%, respectively.

The official information shows several public health programmes carried out in primary care centres and hospitals, which provide free access to medicines and medical attention for patients with the aforementioned prevalent diseases, those monitored by the millennium goals (*i.e.* HIV/AIDS, tuberculosis, malaria), and in reproductive health and family planning.

The analysis of all the information allowed the identification of the importance of the pharmacist in public health and the profession's opportunity to positively influence patient adherence to treatment with concrete actions of hygienic-dietary recommendations (*i.e.* sodium restriction, weight loss, limit alcohol intake or regular aerobic exercise), prevention and promotion of

Figure 3: Activities performed in Part 2 "Analysing data and evidences as the basis for change".



rational use of medicines, considering that prevalent diseases sometimes/often require the concomitant use of multiple drugs.

The participants also agreed on the need for greater involvement of the pharmacist in the planning, coordination and implementation of programmes for public provision of medicines, which could contribute making these programmes more efficient. Moreover, the need to enforce the current regulation (Honorable Congreso de la Nación, 2002; 2009) which establishes that the dispensing of medicines shall be carried out only by a pharmacist in order to ensure their safety and efficacy, and to work to improve adherence to treatment was emphasised.

In this respect, several participants shared their experience of professional interventions that led to achievement of real improvements in the health of their patients in different practice settings. For example, by promoting the rational use of antimicrobials and blood products, incorporating good compounding practices, and taking part in campaigns on early detection of prevalent pathologies such as diabetes and hypertension, among others.

Part 3: Envisioning the necessary changes in pharmacy practice and education. Actions and actors for change.

The activities performed are summarised in Figure 4 and the results obtained from the discussions are described in detail below.

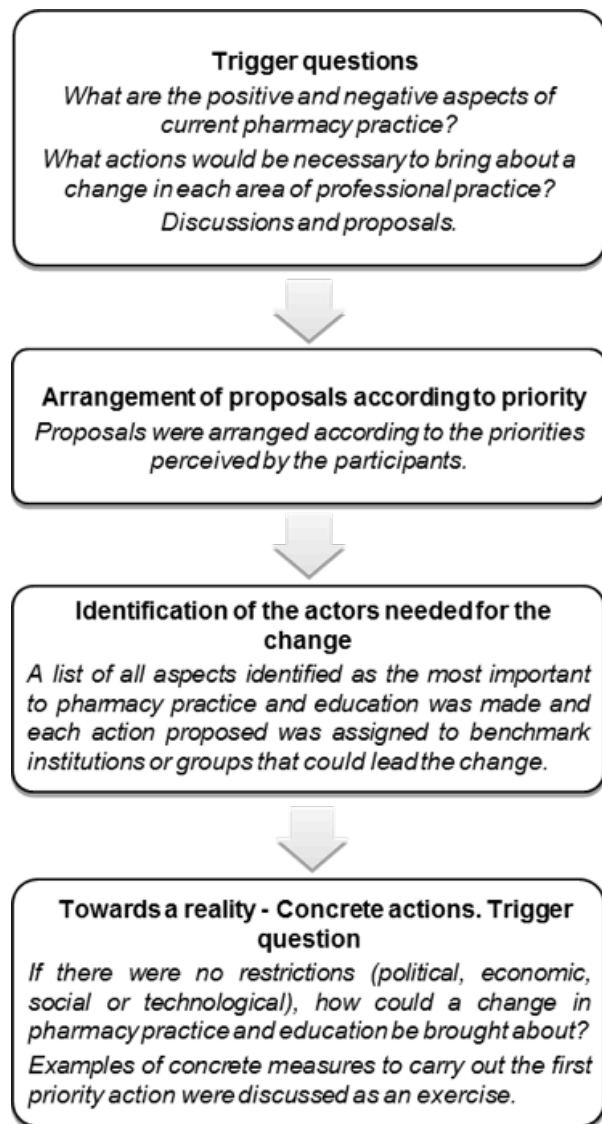
Firstly, the positive and negative aspects emphasised by pharmacists about the professional practice in community, hospital, industrial, regulatory and academic settings were discussed in order to come up with specific action plans after a causal analysis.

Regarding the positive aspects, colleagues working in the community setting identified themselves as the first link in the health system, and highlighted the possibility of dealing directly with their patients. By contrast, colleagues from the hospital setting identified themselves as part of the health team, which allowed them to actively interact with other professionals. Also, they felt capable of solving problems quickly since they were accustomed to carrying out several functions simultaneously. In the industrial setting, pharmacists considered that they developed great versatility due to their participation in different drug manufacturing-related activities. They expressed feeling recognised and respected.

On the other hand, in the regulatory setting an important interaction with all sectors of professional practice was observed. Also, the possibility of participating in health promotion activities was emphasised. Lastly, in the educational setting the impact of training new pharmacists was highlighted as a positive aspect, without neglecting the responsibility that this implies.

Some negative aspects identified as weaknesses were mentioned. In this sense, professionals from all pharmacy settings stated that administrative activities occupied a

Figure 4: Activities performed in Part 3 “Envisioning the necessary changes in Pharmacy Practice and Education. Actions and actors for change”



great part of their daily work, therefore limiting their possibility of getting involved in other more specific activities related to the patient and the profession. In particular, community pharmacists pointed out that their professional practice was closely linked to commercial results and recognised that the lack of profitability was their major concern. Regarding the industrial setting, great regulatory pressure was observed, and poor undergraduate training in specific areas related to facilities, equipment and industrial technology was detected. Additionally, limited training for the technical management of these types of organisations was mentioned.

Hospital pharmacists and those working in the regulatory setting stressed that the lack of human resources forced

them to carry out several tasks simultaneously, preventing them from training and gaining in-depth knowledge of a particular area. Furthermore, they mentioned the impossibility of carrying out long-term projects because they are constantly involved in solving unforeseen situations, due to the lack of planning by national and provincial authorities. Also, they emphasised the failure of the authorities to recognise continuous education at the salary reimbursement level or in terms of professional advancement.

In the academic setting, the lack of a formal pedagogical requirement for teaching in addition to the lack of interest/motivation of some teachers for being trained in this area was stressed. Besides, it appeared relevant to consider a needs-based approach to education focused on the health needs of the population and national priorities.

Table III shows the proposed actions and the actors identified as representatives for the implementation of these actions.

Table III: List of actions proposed by the workshop participants ordered according to their priority and the actors needed for their implementation

Priority	Proposed actions (field of application)	Necessary actors
1	Promote the unity of professionals from all settings to set up a parent institution that fights for their rights (1, 2, 3, 4 and 5).	A, B, J
2	Establish commissions to develop projects of regulations that allow:	
	i) Separating professional practice from commercial interests (1 and 3).	A, B, D, G
	ii) Creating new jobs for pharmacists and opening new areas for specialists in all areas of the health system (1 and 5).	A, D, G
	iii) Creating a career ladder that encourages professional development (1 and 5).	A, D, F, G
	iv) Implementing economic incentives that adequately consider professional qualification and professional service as a paid activity (1, 2, 3, 4, and 5)	A, F, G, I
	v) Making professional certification or re-certification a mandatory requirement (1, 2, 3, 4, and 5).	A, B, D, G
	vi) Developing internship programs for healthcare pharmacists (1).	A, B, D, E
	vii) Harmonizing national and provincial welfare regulations (1, 5).	A, C, D
3	Creating a network between community pharmacists to optimize purchasing and negotiation power (3).	A
4	i) Promoting the social role of pharmacists from the beginning of the course of study through changes in the curriculum content (4).	B
	ii) Promoting, through different institutions (such as Drug Information Centers and Professional Associations), the creation of spaces for interaction between students, teachers and professionals while studying for their first or postgraduate degree, and organizing different coordinated and outreach activities in the community (4).	A, B

The importance of empowering the leaders of each area was highlighted. This would require further discussion that considers the needs of the representatives chosen to carry out each proposed action. Participants also stated that it was necessary to make a personal commitment to work on the agenda for change and expressed their willingness to take on the task. It should be noted that 56% of the attendees were teachers and students in the last year of their degree course in pharmacy and under the age of 35. This active involvement of young people shows commitment and enthusiasm, which favour the implementation of a long-term agenda for change.

As an exercise to determine potential dynamics for the development of each action, participants worked on the basis of Priority 1 (Table III) "Promote the union of professionals from all settings to set up a parent institution that fights for their rights", from which the following ideas and proposals free of all political, economic, social and technological restrictions were suggested:

Priority	Proposed actions (field of application)	Necessary actors
4	iii) Broadening and updating the curriculum content related to the manufacturing of pharmaceutical health products different from medicines like medical devices, cosmetics and nutritional supplements (4).	B, H
	iv) Including contents related to the professional activities involved in the commercialization chain (distributors, importing companies, drugstores) (4).	H
	v) Introducing changes in the curricula and setting up new accreditation standards for the pharmacy programs that include the aforementioned proposals (4).	A, B, E
	vi) Making pedagogical training to teach at university level a mandatory requirement (4).	B
5	i) Incorporating well-trained human resources to lighten administrative burden at hospitals and community pharmacies (1 and 3).	A, B, C, D
	ii) Introducing new technologies into regulatory bodies in order to improve the control and processing of files (5).	C, D
6	i) Getting involved in public health policies and in their dissemination throughout the Community (1, 2, 3, 4, and 5). Requesting their continuity regardless of changes in political leadership (1, 2, 3, 4, and 5).	A, B
	ii) Doing professional marketing to improve the image and social recognition of the pharmacist (1, 2, 3, 4, and 5).	
7	Offering new training courses that include the following topics (1, 2, 3, 4, and 5): i) Regulatory issues (for both practitioners and personnel working for regulatory bodies). ii) Professional services that have a positive impact on health costs. iii) Efficient use of time. iv) Specialization in Industrial Pharmacy.	A, B, H

A, Pharmacists Association and other Professional Institutions; B, Universities and Organizational and Regulatory Bodies in the academic setting; C, National Ministry of Health, ANMAT (Argentina's National Administration of Drugs, Food and Medical Technology); D, Provincial Ministries of Health; E, Ministry of Education; F, Ministry of Labour; G, Members of the legislature; H, Pharmaceutical Industry; I, Superintendence of Health Services; J, Trade Unions. 1- Hospital setting, 2- Industrial setting, 3- Community setting, 4- Academic setting, 5- Regulatory setting.

- Create a continuously updated contact directory that lists the professionals of the country
- Strengthen existing spaces of interaction (both physical and virtual) between the different settings of professional practice
 - Create collaborative networks
 - Encourage greater interaction among professionals working in different settings
 - Identify appropriate interlocutors to interact with other institutions
 - Create a virtual space for the receipt and management of proposals, problems and concerns related to pharmacy practice and education.
 - Identify, through communication strategies, the benefits of collaborative work

Based on a review of the suggestions made in the workshops, the panelists took note of the concerns and proposals presented in each part of the workshop and stated that they were in agreement with them. Furthermore, they acknowledged the importance of the work done and committed themselves to implementing the necessary means to work on them.

Evaluation of the participants' perception regarding the fulfilment of the objectives of the workshop

The questionnaire yielded a response rate of 69%. All participants stated that it was necessary to introduce changes in pharmacy education and professional practice. Of these participants surveyed, 67.7% considered that these changes should be most urgently made at regulatory level, 80.6% at undergraduate level (while studying pharmacy), and 48.4% at postgraduate or continuing education level. They also stated that changes are required at political (51.6%), economic (38.7%) and social (54.8%) levels. Furthermore, 67.7% of the participants stressed the need for a change in the personal commitment of pharmacy professionals.

The majority of the survey respondents (90.3%) believed that the necessary changes mentioned above could be introduced in the next five or ten years.

Regarding the methodology of the workshop, 90.3% of the participants considered that it was excellent or very good and that the objectives were achieved between 60 and 100%. The time devoted to each part was considered to be reasonable (90.3%) since the specific objectives of each of them were fulfilled. The issues addressed in each part were considered to be very important or important (88.7%).

The dynamics of the workshop allowed the participants to: identify the strengths and weaknesses of the pharmacy profession and education to be able to work on the reasons for those gaps (83.9%); cooperate in the planning of action lines that allow overcoming the weaknesses of the pharmacy profession and education (64.5%); identify the representatives that will assist in the implementation of the action plans required to improve

pharmacy practice and education (41.9%); strengthen their identity as pharmacists to place their patients at the core of their actions (38.7%); and to be acquainted with the health policies of Argentina (19.4%).

Discussion

This report contributes to a better understanding of the problems of pharmacy practice and pharmacy education in Argentina and much of South America.

The workshop provided an opportunity for interaction, reflection and dialogue between participants from all settings related to pharmacy education and professional pharmacy practice.

With regards to the mission of the pharmacist discussed in Part 1, the first step of empowering pharmacists is the self-recognition of their importance as medicines specialists in the healthcare system, as defined by the FIP. There is an urgent need for extensive dialogue between professional pharmacy organisations, the faculties of pharmacy and the representatives from ministries of education and health, to focus on the changing roles of pharmacists to become caregivers and to take accountability and responsibility for therapeutic planning and outcomes (Taylor *et al.*, 2015).

The analysis of the current health indicators and the UN millennium goals have shown the urgency to enhance pharmacy education, which must be more synchronised with the health needs of the population (FIP, 2013; 2014). In order to meet the challenges of the near future, communication skills, effective use of time, negotiation skills, leadership, as well as specific training in new health technologies, are the competencies that pharmacists should strengthen (Burgess, Cohen, & Denham, 2010; Siska & Tribble, 2011; Wallman, Vaudan, & Sporrang, 2013; Chisholm-Burns, 2014). Consequently, introducing changes in the pharmacy curriculum and implementing continuing education strategies are required. In this sense, the pharmacy curriculum should be revised and discussed to strengthen items related to innovative areas of medicine and pharmacotherapy, such as biosimilars, regenerative medicine, new therapies for chronic diseases, and phytomedicines, among others, as proposed by Argentina's Strategic Plan 2020 in the area of health (Ministerio de Ciencia Tecnología e Innovación Productiva, 2012). The changes in the curriculum content ought to be accompanied by a progressive interaction between the academic community and society, mainly during the first years of undergraduate studies (Bowers *et al.*, 2017). In turn, the lack of outreach activities made it difficult to see the important role of professionals in our society.

In this context, moving into these new roles requires a competent and well-trained workforce (FIP, 2016) with an appropriate division of labour between pharmacy technicians, pharmacy generalists and pharmacy specialists. However, the change from a traditional drug-

dispensing model to a patient-centred approach in pharmacy practice needs a major change in the roles and responsibilities of both policymakers and educators (Rosenthal *et al.*, 2011; Al-Worafi, 2014; Noble *et al.*, 2014).

These directions are consistent with policies and position statements made by the UN and its agencies such as WHO, PAHO and UNESCO. Moreover, the FIP through its initiative FIPed, has provided several guidance documents relating to this subject. The WHO has also provided leadership in the area of social accountability in health professions education. These efforts originated in the work done on social accountability in medical education and which led to a broader conference held in Port Elizabeth, South Africa, which recommended that all health professions programmes be designed around principles of social accountability (Larkins *et al.*, 2013).

Conclusion

This report summarises the main discussion points and outcomes of an interactive planning workshop. The authors consider that the methodology used, adequately adapted, would be useful for replicating in other contexts. In this sense, this workshop demonstrates that these types of activities carried out systematically could make important contributions to pharmacy education and professional practice, and would allow the gathering of useful information for future guidelines to bring about necessary changes.

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Appendix - Survey workshop 'Creating a desired future for Pharmacy Education and Professional Practice'

Gender	a) Female b) Male
Age (years) (open answer)	
Country of residence (open answer)	
If you are from Argentina, please provide the Province of residence (open answer)	
Professional practice area (multiple response allowed)	a) Community b) Hospital c) Industrial d) Research and development e) Education f) Regulatory
Do you think that it is necessary to introduce changes in pharmacy education and professional practice so that they can be improved or optimised?	a) Yes b) No

If you answered YES to the previous question, at what level/levels do you think that changes should be most urgently made? (multiple response allowed)	a) Normative/Regulatory b) Undergraduate education c) Postgraduate education/ Continuous training d) Political e) Economic f) Social g) Personal (professional commitment)
When do you think that it will be possible to bring about the necessary changes?	a) In the next 5 years b) In the next 10 years c) In the next 25 years d) In the next 50 years e) Do not know/Do not answer
Considering the area in which you practice, which actions are you able to perform to collaborate with the necessary changes? (Open answer)	
The methodology of the workshops and the topics discussed were:	a) Excellent b) Very good c) Good d) Unsatisfactory e) Do not know/Do not answer
The aim of this workshop was to provide a space of reflection and constructive dialogue for the participants interested in and committed to substantially improving pharmacy education and professional practice in Argentina and the region. In this regard, to what extent do you think that the workshop achieved its proposed objectives?	a) 0-20 % b) 21-39 % c) 40-59 % d) 60-79 % e) 80-100 %
Regarding the organisation of the workshop, do you think that the time devoted to discuss the topics of each of the workshops was:	a) Long b) Reasonable c) Short
With respect to part 1: <i>Thinking about a desired future</i> , do you think that the aspects discussed were:	a) Very important b) Important c) Not very important d) Irrelevant e) Do not know/Do not answer
With respect to part 2: <i>Analysing data and evidences as a basis for change</i> , do you think that the aspects considered were:	a) Very important b) Important c) Not very important d) Irrelevant e) Do not know/Do not answer
With respect to part 3: <i>Envisioning the necessary changes in Pharmacy Practice and Education. Actions and actors for change</i> , do you think that the aspects considered were:	a) Very important b) Important c) Not very important d) Irrelevant e) Do not know/Do not answer
This workshop allowed: (multiple response)	a) Strengthening their identity as pharmacists to place their patients at the core of their actions. b) Being acquainted with the health policies of Argentina. c) Identifying the strengths and weaknesses of pharmacy profession and education to be able to work on the reasons for the weaknesses detected. d) Cooperating in the planning of action lines that allow overcoming the weaknesses of pharmacy profession and education. e) Identifying the representatives that will assist in the implementation of the action plans needed to improve pharmacy practice and education.
Comments or suggestions (open answer)	