

First Annual Lebanese Pharmacy Schools Symposium

United in Action: Pharmacy Education and Practice Advancement

Day 1: Saturday, February 17, 2024 - Irwin Hall Auditorium, LAU Beirut Campus

Speakers

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Abstracts

Theme I: Pharmacy Education in Lebanon: Challenges and Opportunities

Presentation 1: Curriculum Review: Process and Outcomes

Speaker: Dr. May Saab (BAU)



Dr. Saab is the Assistant Dean and Associate Professor at the Pharmaceutical Technology Department, at the Faculty of Pharmacy, Beirut Arab University. She graduated with a B.S. degree in Pharmacy from Beirut Arab University (BAU) in 2003 and received her Master and PhD degree in Pharmaceutical Technology from BAU in 2009 and 2016, respectively. Dr. Saab has over 15 years of experience in academia. She has also contributed in the curriculum development and the design of some pharmacy practice courses.

Her research interests cover the field of polymer-based and modified release drug delivery systems, nanotechnology and pharmacy practice. She has published several research articles in highly ranked journals and participated in several conferences and workshops.

Dr. Saab has supervised and examined many PharmD thesis, and master thesis and has reviewed several research articles in international journals. She is a member of the "Dean's Advisory Committee" and "Quality Assurance Committee", and a former member of the "Strategic Planning Committee" and "Library Committee" at the Faculty level. Also, she is a member of the "community service committee" at the university level. She participated as an active member in the "Academic Board Committee" at the Order of Pharmacists of Lebanon from 2016 to 2019. She is also a member in the pharmacy colloquium committee at the ministry of education and higher education since 2016.

The dynamic changes in standards of practices of the pharmacy profession have increased the need to reform and advance pharmacy education. The transformation and renewal processes in transitioning the curriculum from a traditional to a competency-based curriculum is vital to meet the rapidly changing needs and enable the development of graduates who can respond to these challenges.

A thorough review of the existing program is the starting point in the process of transformation. The identification of the required competencies is facilitated by using a well-established competency framework as a guiding and mapping tool. Moreover, the involvement of stakeholders is essential to align the competencies to the local professional and healthcare needs.

One of the key elements for a successful curriculum restructuring is the introduction of new courses, new disciplines and skills relevant to the existing gaps, while maintaining a coherent program. Additionally, a gradual increase in the extent of integration of skills with course content is crucial for a competency-based curriculum. In brief, it should be noted that curriculum review is a continuous process where refinement and optimization take place based on short term and long-term evaluation and feedback cycles

Presentation 2: Competency Based Education and Professional Identity

Speaker: Dr. Iqbal Fahs (LIU)



Dr. Fahs serves as a Clinical Assistant Professor at the Lebanese International University and is a Registered Pharmacist with the Lebanese Order of Pharmacists (OPL). She obtained her pharmacy BS in 2012 and PharmD in 2016 from the Lebanese International University. With over ten years of experience in clinical, hospital, industrial, and community settings, Dr. Fahs brings a wealth of knowledge to her roles. Having dedicated eight years to academic teaching at the Lebanese International University, she currently holds the positions of chair of the curriculum committee and hospital experiential education coordinator. Dr. Fahs is actively involved in various research areas, including pharmacy education, community pharmacy, cardiovascular diseases, mental health, and public health. She has presented her research at international conferences and published in reputable peer-reviewed journals. Combining her roles as a professor and healthcare professional, Dr. Fahs has gained extensive clinical experience, enabling her to contribute actively and productively to the community.

In implementing Competency-Based Education for pharmacy students, the identification of core competencies is crucial, involving the definition of essential skills like clinical expertise, communication, ethics, problem-solving, and teamwork, aligned with industry standards. The curriculum development process structures learning around these competencies, breaking them into specific objectives and incorporating diverse teaching methods. By implementing Competency-Based Education with a focus on professional identity development, pharmacy schools can better prepare students for the dynamic and evolving demands of the healthcare industry. This approach not only ensures that graduates possess the necessary skills but also cultivates a strong sense of professional responsibility and identity. Integration of professional identity development emphasizes values, ethics, and lifelong learning, fostering reflective practices.

**Presentation 3: Connecting the Dots:
A Holistic Approach to Integrating
Pharmacy Education, Research, and
Practice**

**Speaker: Prof. Pascale Salameh
(LU/INSPECT-LB)**



Dr. Salameh holds the position of full professor of Epidemiology at the Lebanese University, Faculty of Pharmacy. Additionally, she serves as an adjunct and visiting professor at esteemed institutions such as the Lebanese American University - School of Medicine and various European universities, including those in France, Belgium, Germany, and Cyprus. Proficient in research direction, accreditation, and education quality, she has extensive expertise in research design, data collection, management, and advanced statistical analysis.

Prof. Salameh ranks in the top 1% of global researchers in public health according to Scopus, with a remarkable portfolio comprising over 600 publications in peer-reviewed journals, numerous book chapters, and an extensive array of oral presentations and scientific posters. Her contributions span the fields of medical epidemiology, clinical pharmacy, higher education, and public health. Notably, she is the founder and director of INSPECT-LB, an autonomous multidisciplinary health research group recognized as the top-ranked institution in research by Scimago Institutional ranking for two consecutive years in Lebanon.

Prof. Salameh has been honored with the Medal of the French National Academy of Pharmacy. She actively participates in various national committees related to health, leveraging her expertise as an antimicrobial resistance specialist collaborating with the World Health Organization in Geneva. Furthermore, she plays an integral role as an active member of the International Pharmaceutical Federation.

Prof. Salameh brings a wealth of administrative experience, having served as the Former Dean of the Faculty of Pharmacy at the Lebanese University and the Former Associate Dean for Academic Affairs at the School of Pharmacy at the Lebanese American University. She has also been the Chair of the Scientific Committee at the Lebanese Order of Pharmacists for many years, committing to advancing pharmacy education and research.

Pharmacy is undergoing continuous evolution on a global scale, with its foundations resting upon three crucial pillars: education, research, and practice. These elements must operate seamlessly as a continuum, each reinforcing the other. The educational aspect of pharmacy must be grounded in competencies and elevated through adherence to stringent quality standards. Research endeavors should strategically bridge existing gaps both within the profession and between its fundamental pillars. Furthermore, the practice of pharmacy necessitates a long-term strategic approach, guided by the principles of Good Pharmacy Practice. This demands a workforce equipped to confront the challenges inherent to patient care. Within the Lebanese context, the quality of pharmacy education is commendable; however, standardization remains a challenge. Research efforts appear fragmented, lacking cohesion, while the practice of pharmacy faces hurdles that pose potential threats to patient well-being. Despite identified strengths and acknowledged difficulties, suggested strategies from stakeholders have yet to be implemented, creating a gap between recognition and action. To address these issues and propel the field forward, academic institutions must exert pressure on authorities for the application of proposed strategies. This includes advocating for the standardization of pharmacy education and fostering a more consolidated and coherent approach to research. Simultaneously, legislative reforms must align with these proposed changes, creating a parallel progression that reinforces the overall advancement of the profession. Only through the joint efforts of educational institutions, regulatory bodies, and practitioners can the full potential of the pharmacy profession be realized, ensuring the highest standards of education, research, and practice for the benefit of patients and the broader healthcare landscape in Lebanon.

**Presentation 4: Why Co-curricular
Activities?**

Speaker: Dr. Aline Bou Maroun (LAU)



Dr Aline Bou Maroun is a Clinical Assistant professor at the Lebanese American University- SOP. She is a registered pharmacist at the Lebanese Order of Pharmacists (OPL). Dr Bou Maroun holds a BS in pharmacy (2006) and a PharmD degree (2007) from LAU. After graduation, she worked for 3 years with a multinational company as a medical representative, then moved to the States where she practiced as community pharmacist with CVS in Washington D.C. In 2013, she joined LAU as part time instructor, and worked as community pharmacist until December 2021, when she became a full time faculty at LAU. Her role in academia has flavored her patient care experience in the community practice, and her experience in community served as a great support in her academic duties.

She is also the co-curriculum coordinator at LAU, a program that helps develop the students' competencies and soft skills to better prepare them for a competitive workplace

Her research interests include community pharmacy and ambulatory care.

The co-curriculum program is a set of activities meant to complement the curriculum and enhance students' personal and professional development. In this presentation, Dr Bou Maroun will explain how the co-curriculum program, initially started as an accreditation requirement, was shaped into a well-structured and diversified experience, empowering students and helping them in molding their competencies and soft skills, to better prepare them for a competitive workplace.

Presentation 5: Digital Health in Pharmacy Education

Speakers:

Dr. Roy Kanbar (LAU)



and

Dr. Jihan Safwan (LIU)



Dr. Kanbar earned his Doctor of Pharmacy degree from the Faculty of Pharmacy at the University Saint-Joseph (USJ) in Lebanon in 2002. Thereafter, he obtained his Master Degree from the University Lyon 1 in France (2005). Later, he received a full scholarship from the French ministry of higher education to pursue his research in the fields of Physiology and Cardiovascular Pharmacology in the Department of Clinical Pharmacology at the University Lyon 1, where he earned his Ph.D. Degree in 2008. Subsequently, Dr. Kanbar received a fellowship from the French Society of Hypertension to work on a post-doctoral project at the University of Virginia, USA. Dr. Kanbar has several publications in peer-reviewed international journals in the field. Dr. Roy Kanbar joined the LAU School of Pharmacy in 2010. Since then, he led several programmatic quality assurance and pedagogical endeavors, in his capacity as associate dean for academic affairs and chair of key committees such as, assessment and evaluation committee, accreditation self-study, accreditation steering committee, and school's strategic plan workgroup.

Dr. Safwan is a Registered Pharmacist at the Lebanese Order of Pharmacists (OPL). Dr. Safwan holds both a pharmacy BS (2007) and PharmD (2008) degrees from the Lebanese American University. During her pharmacy practices, she has earned experiences in clinical, hospital, and community settings. She has attended and participated actively through oral communications in many national and international conferences and pharmacy education-related workshops in the GCC and the Middle East. She also participates in the continuing education program organized by the OPL through presenting many didactic lectures. Dr. Safwan has more than ten years of academic teaching experience and chaired many school committees, including the accreditation, curriculum, grievance, and extracurricular committees. Her main research interests are pharmacy education, community pharmacy, cardiovascular diseases, mental health, epidemiology, and public health. She has presented her research at various international conferences and published her work in renowned peer-reviewed journals. Her role as both a professor and a health care professional has given her broad clinical experience to play an active and productive role in the community.

In recent years, the integration of digital technologies into various facets of education has significantly transformed traditional learning paradigms. As we stand at the intersection of healthcare and technology, it is imperative to equip future pharmacists with the knowledge and skills necessary to thrive in an increasingly digitized landscape. This presentation delves into the emerging landscape of digital pharmacy in education, exploring innovative approaches, tools, and strategies that leverage technology to enhance pharmaceutical education.

Presentation 6: Industrial Pharmacy Curriculum Experience at the Lebanese University

Speaker: Dr. Sanaa Awada (LU)



Sanaa Awada, PharmD, Msc & PhD in Clinical Pharmacology and Pharmacokinetics is a Doctor of Pharmacy since 1991, with a Master in Experimental & Clinical Pharmacology in 1995, Master in Biopharmacy & Biodynamic in 1995, a specialized Diploma of Investigations in Clinical Trials in 1996 and PhD in Clinical Pharmacology & Pharmacokinetic in 2004 from the "Faculté René Descartes, Université Paris V, France". She is currently full Associated Professor at the Faculty of Pharmacy, Lebanese University, teaching several courses: Basic and Clinical Pharmacokinetics; Biopharmaceutics; Methodology of Clinical Trials II & Modelling in Health for the M2R in Clinical Pharmacy and Pharmacoepidemiology, Therapeutic drug Monitoring for the M2P in Clinical Pharmacy; and, of Pharmacology at the Public Health Faculty, Lebanese University.

She is also Chair of Drug Quality Committee at the Lebanese Food, Drug and Chemicals Administration (LFDCA) Laboratory at the Lebanese University; Head of Masters Department and chairperson of Master 2 in Pharmaceutical Industry at the Lebanese University, Faculty of Pharmacy; member of subcommittees for program accreditation at the Faculty of Pharmacy, Lebanese University She was for several years' member of technical committee of Drugs at the Ministry of Lebanese Public Health and previous member of scientific committee of Lebanese Order of Pharmacist. She has a long teaching experience in several academic institutions and has several publications in peer-review journal with several oral presentations and scientific posters in the fields of clinical pharmacy and Pharmacokinetics, pharmacoepidemiology and clinical epidemiology.

To meet the needs of the pharmaceutical market in Lebanon, the Faculty of Pharmacy of the Lebanese University provides a professional Master's degree in Pharmaceutical Industry, focused on the development and management of drugs. created in 2013, This master's program offers students in pharmacy and biochemistry in-depth knowledge in fundamental pharmaceutical sciences to practice and take responsibilities, solve problems, and make decisions, associated with various industrial functions such as the design of pharmaceutical products and their analysis, pharmaceutical biotechnology, quality control and assurance, clinical trials, Marketing, regulatory affairs, and pharmaceutical management. Additionally, the master's program also offers advanced practical experience and training in licensed pharmaceutical factories, providing the opportunity to conduct an in-depth research project (as thesis project) as part of an active research group selected by the student. The validation of 30 theoretical credits with 30 practical credits, this master can ensure students the ability to pursue their PhD.

Theme II: Pharmacy Practice in Lebanon: Challenges and Opportunities

Presentation 1: Role of Academia in Shaping the Next Generation of Pharmacists

Speaker: Prof. Naser Alsharif



Dr. Alsharif holds a PharmD (87) and MS (88) in Pharmaceutical Sciences from the University of Nebraska Medical Center and a Ph.D. (92) in Pharmacology/Toxicology from Creighton University in the US. He is currently professor and Dean at Lebanese American University School of Pharmacy. He was a tenured professor of pharmacy sciences at CU for 28 years. He is an accomplished educator and researcher. He served as visiting professor and consultant at a number of universities in the Arab World.

In this presentation, we will explore our vision for pharmacy education and practice in Lebanon; what is a pharmacist of the future; the knowledge, skills and attitudes required for practice and the role of academia in developing a culturally sensitive and dynamic curriculum to prepare a pharmacy academic and practice workforce.

Presentation 2: Pharmacy Practice in Lebanon: Challenges and Opportunities

Speaker: Dr. Mohamad Hijazi (BAU)



Dr. Hijazi is an Associate Professor, and head of Pharmaceutical Sciences Department at the Faculty of Pharmacy at Beirut Arab University. Currently, he is the academic coordinator for undergraduate studies, and responsible for developing and teaching courses related to natural medicine, research methods, and pharmacy practice. He believes in the twining between teaching and research, which represents his best response to academic and professional challenges. Drug discovery, especially from natural products, is the essence of his research and innovation. As a pharmacist expert in natural medicine, he embraces his responsibility towards both the health care team and the users to provide scientific evidence for the effective and safe use of Complementary and Alternative Medicine. This requires a combination of skills (in pharmacognosy, phytochemistry, pharmacology, and cell biology) and in which he has developed his skills. Dr. Hijazi has extended an arm in serving Lebanese health stakeholders to ensure the proper translation of his research findings into policy, practices, and community services.

Presentation 3: Scope of Practice of Pharmacists in Lebanon

Speaker: Dr. Marwa Jamal (BAU)



Dr. Marwa Al Jamal studied pharmacy at Beirut Arab University from where she got her MSc and PhD degree in pharmaceutical analytical chemistry and drug quality control after fulfilling her doctorate research entitled "evaluation of some new drugs used in the treatment of cardiac disorders". She is now fulfilling the position of associate professor in the pharmaceutical technology department at the faculty of pharmacy- Beirut Arab university. She is the Owner of Marwa pharmacy for more than 6 years. She has several publications in international journals. She is a member at the order of Lebanese pharmacist and moreover she is a member of the scientific and continuous education committees for several years. This year she fulfilled the position of colloquium committee at the Order of Pharmacist of Lebanon. She was a member of technical committee responsible for the registration of medication at the ministry of Public Health. She is an associate professor of pharmaceutical analytical chemistry and drug quality control as well as the pharmacy practice experience course coordinator at Beirut Arab University.

The scope of practice of pharmacists in Lebanon includes a wide range of responsibilities and professional activities across various sectors. Pharmacists in Lebanon are integral members of the healthcare system, providing essential services in different settings such as community pharmacies, hospitals, and other healthcare facilities. Their roles include dispensing medications, counseling patients on the safe and effective use of medications, collaborating with healthcare providers to ensure optimal drug therapy outcomes, and promoting public health through medication management and education. Lebanese pharmacists play a crucial role in medication safety, quality control, and regulatory compliance. An overview of the diverse scope of practice of pharmacists in Lebanon will be discussed. It will highlight the contributions of the pharmacists to healthcare delivery, patient care, and public health. Hospital pharmacists play a critical role in ensuring the safe and effective use of medications within healthcare institutions, collaborating with healthcare teams to optimize patient care. Clinical pharmacists are involved in direct patient care, conducting medication therapy management and providing specialized pharmaceutical services in clinical settings. Research and development pharmacists contribute to the advancement of pharmaceutical science and innovation through the discovery and development of new medications and therapies. Medical sales representatives utilize their pharmaceutical expertise to promote and distribute medications, medical devices, and healthcare products. Regulatory affairs specialists ensure compliance with pharmaceutical regulations and standards, playing a key role in the approval and registration of medications. Academic pharmacists are involved in teaching, research, and scholarly activities within educational institutions, shaping the future of pharmacy practice and advancing the field. Production pharmacists are responsible for the manufacturing and quality control of pharmaceutical products, ensuring their safety and efficacy. Pharmaceutical analytical pharmacists specialize in the analysis of pharmaceutical products, conducting quality assessments and ensuring adherence to regulatory standards.

Presentation 4: Blueprint for Progress: Transforming Pharmacy in Lebanon through Regulatory Reform

Speaker: Dr. Randa Aoun (USJ)



Randa holds a PharmD degree from the Saint-Joseph University of Beirut (USJ), Beirut, Lebanon. Currently serving as the Chief Operating Officer (COO) of HOLMED Group since March 2023 and Associate General Manager at Pharaon Healthcare Group of Companies, she has expertise as a regulatory affairs specialist. She is known for her excellent communication and technical skills, demonstrating confidence and effectiveness under pressure, and thriving on challenges.

In addition to her role in the corporate sector, Randa is actively involved in education. She serves as an instructor for the "Legislation and Regulation of Pharmaceuticals and Food Supplement Products" course in the Master Biomarketing program at the Faculty of Sciences at USJ. She is also an invited professor of Regulatory Affairs in the "Mastère Spécialisé, Management des Entreprises du Biomédical" at Grenoble École de Management, Grenoble, France.

Over the course of two mandates at the Lebanese Order of Pharmacists, she held numerous managerial positions, including Vice President of the Order, Member of the Board, Member of the Retirement Fund Committee, Member of the Disciplinary Board, and Chair of the Scientific Committee for several years. Her multifaceted contributions highlight her versatility and dedication to advancing the pharmacy profession.

With a focus on achieving organizational goals, Randa has utilized her technical skills in various departments, notably the Regulatory Department. She is recognized as a highly motivated problem-solver, a customer-focused performer committed to quality, and a valued contributor who thrives on challenges. Randa's enthusiasm for learning is evident as she quickly grasps new concepts and technical skills, always eager to expand her certification portfolio.

As for all professions in the world, the profession of pharmacy needs transformational change to effectively and safely meet society's health care needs.

There are calls internationally for fundamental changes in laws of the profession of pharmacy to address significant changes in population demographics, technology, and the upsurge in the use of health services across the sector.

The European Commission is proposing today to revise the EU's pharmaceutical legislation - the largest reform in over 20 years - to make it more agile, flexible, and adapted to the needs of citizens and businesses across the EU.

To better support pharmacists' ability to be integrated into a patient's overall care plan, more effectively work with other primary care providers and open opportunities for pharmacists to expand disease monitoring and prevention services, laws need to be amended or issued to set the correct and most agile environment.

What about the reforms in Lebanon from all this?

Presentation 5: Interprofessional Education: Role of Different Professions

Speaker: Dr. Aline Milane (LAU)



Dr. Milane received her Doctor of Pharmacy (D.Pharm.) degree from the Saint Joseph University in Beirut (USJ) in 2004, and her Master of Science (M.Sc.) and Doctor of Philosophy (Ph.D.) degrees in Pharmacology from the University of Paris-Sud (XI) in 2005 and 2009, respectively. Dr. Milane joined the Lebanese American University School of Pharmacy in 2009 where she is currently Associate Professor of Pharmaceutics, Pharmacology and Pharmacokinetics. In addition to her research and teaching activities, she also actively serves on many school and university committees including the interprofessional education faculty workgroup and is currently chairing the school's curriculum committee.

Interprofessional education (IPE) emerges as the cornerstone for cultivating a collaborative spirit, preparing future healthcare professionals to work in concert towards optimal patient care. The most important IPE outcomes are improved interprofessional communication and enhanced patient care outcomes. This presentation delves into the vital contributions of medicine, nursing, pharmacy, nutrition and social work are crucial in shaping IPE curriculum design and implementation. The presentation extends beyond theoretical frameworks, showcasing innovative IPE initiatives happening in training and practice stemming from simulated scenarios to interprofessional patient rounds and beyond. The presentation will also acknowledge the challenges of resource constraints such as professional silos, and curricular integration, To conclude, the presentation will ignite a call to action. Educators, healthcare professionals, and institutions must collectively mobilize to champion and invest in IPE, transforming seamless collaboration from an aspiration to the everyday reality of healthcare.