Commentary

Social pharmacy as a field of study: The needs and challenges in global pharmacy education

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Abstract

The practice of pharmacy and, consequently, pharmacy curricula have undergone significant changes over the past years in response to a rapidly changing economic, political, and social environment. Within this context, the pharmacist’s role had expanded to include more direct interaction with the public in terms of the provision of health information and advice on the safe and rational use of medications. To carry out these roles effectively, pharmacists need to be well prepared on how to deal with patients’ behavior and psychology. The understanding of patient sociobehavioral aspects in the medication use process is paramount to achieving optimal clinical and humanistic outcomes from therapy. The concept of behavioral sciences and health psychology are embedded as the fundamental concepts in the field of social pharmacy, and thus it is imperative that this should be taught and nurtured to future pharmacy practitioners. Based on the growing needs for future pharmacists to be exposed to issues in social pharmacy, many pharmacy schools around the world have adopted this subject to be part of their standard curriculum. In this review, a discussion of the needs of social pharmacy courses in pharmacy curriculum will be addressed in the context of both developed and developing countries.

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Background

Despite the tremendous advancement in medical technology during the last decades, the health status of many people worldwide has not yet improved. This is mainly because of the fact that the health status of the population depends largely on socioeconomic and political factors of the individual and the nation. The current changes in sociopolitical landscape of health care delivery globally also contributed to the lack of access to efficient health care services among some populations, especially in developing countries. Moreover, in most developing countries, the delivery of effective health care services also is hindered by lack of culturally qualified competent health care providers. Future health care practitioners need to understand not only the clinical origin of diseases and treatment modalities but also the social and behavioral aspect of health care needs. Understanding these aspects will enhance patients’ treatment outcomes through a mutual understanding of issues beyond clinical sciences. Thus, reorienting health care professionals’ education to incorporate subjects related to social and behavioral aspect of health is important but still remains a major challenge for many health fields including pharmacy.

Lately, with the tremendous evolution of pharmacy practice in developed nations such as the United Kingdom, Australia, and the United States, it becomes evident that pharmacists can contribute more significantly toward public health. There is now considerable movement among health policy makers and educators in developing good humanistic skills and attitudes of future pharmacists, which is necessary to meet the health care needs of most people. Furthermore, in the last 2 decades, extensive transitions have been observed in pharmacy curricula at the global level, mainly with the incorporation of social and behavioral sciences topics under the new field called “social pharmacy” at many pharmacy schools. Initially, “social pharmacy” was synonymous with the social distribution of drug use and “pharmacoepidemiology”, but recently “social pharmacy” is now recognized as involving considerably more than mapping drug use in the population. It offers a perspective on pharmacy that complements the behavioral and physical science component of the pharmacy curriculum. In a nutshell, it incorporates the social implication associated with the therapeutic and nontherapeutic uses of pharmaceutical preparations as examined from the perspective of individual and group behavior and the social systems that exist between them.

Although a complete discussion linking social sciences with pharmacy is not possible in a single document, a brief historical background on “social pharmacy” education and its needs, with illustrations from a few developed and developing nations in establishing their social pharmacy programs, will be described in the following sections.

Social pharmacy education

Since the early 1980s, efforts were undertaken to find out which areas of pharmacy practice could greatly contribute in pharmacy training. Among many recommendations, an independent committee of inquiry established under the aegis of the Nuffield Foundation in United Kingdom advocated that “social and behavioral science” should be incorporated into the pharmacy undergraduate curriculum. Defined as the scientific study of human behavior, “behavioral science” is often associated with disciplines that deal with people and society, including psychology, sociology, and anthropology.

Because behavioral science can help demystify the nature of health and illness, determine the social causes of disease, and identify lay population health beliefs, such a field is basically needed by all health care practitioners, including pharmacists for optimal treatment outcomes. Because of the importance of this issue, institutions such as the schools of pharmacy and the Royal Pharmaceutical Society of Great Britain suggested that aspects of behavioral sciences and sociology should be incorporated into the pharmacy undergraduate curriculum to adequately prepare pharmacy students for their future practice.

Why social pharmacy education is needed for future pharmacists

The last decades have witnessed an increasing number of changes in the pharmacists’ roles. For instance, in primary care activities, compounding and formulation of medicines are becoming less important because of the availability of prefabricated drug products. Furthermore, the adoption of innovative patient-oriented roles for pharmacy, such as medication adherence counseling, home medicine review, and to a certain extent as supplementary

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and independent prescribers, warrants that more time should be dedicated to patients not the products. In this context, a good understanding of patients’ behavior and psychology is very important to achieve the goal of pharmaceutical care. As shown in Fig. 1, the knowledge gained in social pharmacy is very essential to tie together the assorted pieces of knowledge taught in pharmacy, which includes subjects from (1) the traditional fundamental sciences such as chemistry, pharmacology, and physiology, (2) clinical subjects such as clinical pharmacy, and (3) social sciences subjects such as communication skills.

The contribution of social science to pharmacy practice

Pharmacy services in many countries around the globe could make a greater contribution to health care. Steps to ensure that pharmacy education provides students with the knowledge and skills to contribute to public health priorities of their local populations are increasingly seen as an important goal of pharmacy education. Clearly, in the process of developing their professional skills, pharmacy students need to understand that patients will have their own beliefs, views, and perspectives about their health and the use of medicines. Their perceptions and perspectives toward medications can be important determinants of the success of health intervention strategies.

Health care practitioners in many countries are faced with the problem of treating patients whose beliefs and behaviors about health and illness may be completely different from their own. There are a wide variety of ethnic groups with different religion or sect belief, which can present a challenge in health care delivery because of differences in health care need based on their belief system. Complying with prescribed medication or adhering to changed lifestyle strategies may present problems among such ethnic groups, and evidence suggests that most patients will modify their treatment, some will stop medication completely, and some will take all their daily doses in a single intake.

The knowledge gained from social pharmacy courses will help in the development of personal and interpersonal skills related to effective counseling and communication in enhancing the medication use process in the society. It also can enhance pharmacy professionalism and leadership qualities.

Global case studies on the development of social pharmacy programs

Examples from developed countries

In 1975, the study commission on pharmacy in the United States identified the need to incorporate the behavioral and social sciences in pharmacy curricula. In the same year, the Council of Pharmaceutical Education included pharmacy administration and social/behavioral sciences in their indicative curriculum. In 2004, the American Association of College of Pharmacy incorporated many social and behavioral topics as required outcomes of pharmacy programs in the United States.

In the United Kingdom in 1986, the Nuffield Committee of Inquiry into Pharmacy decided to include behavioral sciences in their undergraduate pharmacy curriculum. Social pharmacy is now taught in all schools of pharmacy across the United Kingdom and forms part of the Royal Pharmaceutical Society’s indicative curriculum. Similarly, a number of Northern and Eastern European countries introduced social pharmacy into their curricula in the mid-1970s.

Examples from developing countries

The scenario of developing countries’ contribution in pharmacy education is worth mentioning. The Universiti Sains Malaysia (USM) is the first public university to offer a Bachelor’s Degree in Pharmacy in Malaysia since 1972. More than 3000 pharmacy graduates completed their bachelor degree from the USM and later served as local pharmacy workforce. The School of Pharmaceutical Sciences in USM has a multidisciplinary
pharmacy curriculum designed to provide holistic training to prepare students for life-long learning and to equip them with broad scientific knowledge and essential skills. The integrated pharmacy program consists of basic science and pharmaceutical science subjects in the first 2 years of study and progresses toward patient care and clinical pharmacy. In the third and fourth years, the students’ professional skills are linked to an advanced clinical and pharmacy practice. Hence, the curriculum inculcates a high standard of pharmacy training in practical knowledge and professional skills. The 4-year program covers 6 disciplines of study, namely pharmaceutical chemistry, physiology, pharmaceutical technology, pharmacology, clinical pharmacy, and social and administrative pharmacy. Social and administrative pharmacy subjects were first incorporated in the curriculum in 1992-93 academic sessions and have been designed to prepare students for responsible leadership positions in academia, industry, or public service. As such, these courses equip students for careers in governmental agencies, pharmaceutical firms, community pharmacies, universities, professional bodies, and health insurance companies, all of which have a direct and indirect impact on the social fabric of the country. Students learn to give optimum services to the patients as well as make them aware about the prevention and cure of diseases.

The Discipline of Social and Administrative Pharmacy (DSAP) at USM is committed to promote research in drug use problems in developing countries. At present, more than 50 postgraduate students from more than 14 developing countries are being guided by the faculty members in carrying out research oriented to social and administrative pharmacy umbrella either in their own countries or in Malaysia. The priority areas of research of DSAP are multidisciplinary and include pharmacoeconomics, pharmacoepidemiology/pharmacovigilance, sociobehavioral aspects of health and pharmacy, outcomes research, quality-of-life assessment, pharmaceutical management, and marketing.

These changes are not as pervasive in other countries. In India, low attention is given to clinical and social sciences. This could be seen in a recent proposed Pharm.D. curriculum in India, which omitted the term social pharmacy from its curriculum. In general, most of the curricula contents are more oriented to industrial pharmacy wherein more emphasis is given on chemistry, pharmacology, and pharmacognosy topics. Students are required to undergo 2 months of practical training in a drug manufacturing unit or hospital pharmacy. Therefore, it can be seen that pharmacy graduates in India are better prepared in industry and business-oriented settings. On the other hand, in Cuba, pharmacy practice has shifted from product-oriented to a more patient-oriented direction wherein aspects of pharmacy practice were incorporated into the curricula of pharmacy education since early 1990s. This was followed by the introduction of social pharmacy course that covered pharmacy services, management, ethics, and special pharmacy services. It has been reported that the Cuban pharmacy students are knowledgeable about pharmaceutical care and able to conduct research to evaluate the impact of interventions on patients’ knowledge, practice, and quality of life.

In the Middle East, a recent study evaluated the pharmacy curricula in Lebanon and found 3 different educational systems, which are the U.S., Lebanese, and French systems. These systems were found to vary in terms of the curriculum contents. It has been found that the U.S. system gives more attention to most social and administrative pharmacy components compared with French and Lebanese systems.

**Challenges for incorporating social pharmacy courses in the pharmacy curriculum of developing nations**

**Pharmacists’ roles in developing countries**

In the beginning of the sixth century BC, humans started a long process of compiling pharmacological knowledge that contributed toward public health. The scope of pharmacy practice encompasses areas of compounding and dispensing medications, services related to patient care including clinical services, reviewing medications for safety and efficacy, and providing drug information. In developing nations, pharmacy curricula vary tremendously from one to another. This is mainly because of the fact that the roles of pharmacists within these countries differ significantly, and the traditional role as a dispenser or medicine seller still prevails because of lack of recognition of their role by general public, other health care professionals, governments, and payers. The pharmacy profession captured the imagination of only a small segment of the population as a vibrant health care profession. Their role is seen not more than a seller of drugs, and there
are always professional conflicts occurring with the rest of health care professionals, such as the medical and nursing fraternity. Beside that, pharmacists are not seen as part of a broader public health care team. For instance, although HIV/AIDS is prevalent in many developing nations, pharmacists in these countries are underused in prevention and health promotion campaigns. This might be because of the fact that both public and other health care practitioners perceived that pharmacists are not well positioned to take such an active role in public health initiatives that are generally considered to be the domains of other health care professionals.

Regarding pharmacy education and training, many colleges/schools, especially in South Asia, emphasize basic science fields such as pharmaceutical chemistry and pharmaceutical technology. Only little exposure on clinical aspects is given to pharmacy students in these countries, and patient-oriented care is relatively a new concept in pharmacy practice. This is mainly because of lack of understanding among pharmacy educators on the need of social pharmacy and its relevance in pharmacy education. The problem is further complicated by lack of faculty who are well trained in social pharmacy concepts and research. Similarly, funding for social pharmacy research from international bodies is relatively nonexistent, and this has negative implications for those academics interested in this field to undertake their research effectively.

Conclusion

The importance of social pharmacy courses in pharmacy curricula is becoming more important because of various factors that can influence the health of society. A deep understanding of issues related to social pharmacy will help the profession to further transgress in improving population health. To overcome the challenges in adopting social pharmacy as a field of its own in pharmacy education and practice, importance of social pharmacy in pharmacy practice models should be highlighted to pharmacy students, educators, and other stakeholders in health care delivery. This can be achieved through establishment of strong networking among educators who have special interest in the field. Universities with an established pool of researchers can become a point of reference in developing human capital in the field. For example, the Social and Administrative Pharmaceutical Sciences faculty at USM have managed to become one of the centers of excellence for teaching social pharmacy to undergraduate and postgraduate students as well as health care practitioners in Asia. Additionally, international collaborative networking between educational institutions and international organizations such as the World Health Organization and Management Sciences for Health (www.msh.org) should be encouraged for more human capital development in the field.

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