

Interdisciplinary Education and Research in Management Sciences and Pharmacy to Implement Pharmaceutical Care

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In the past years, the role of pharmacists has changed extensively. Drug-based services, like dispensing and preparing drugs, have been extended to patient based services, like medication therapy management (1). The pharmaceutical care concept may be the most important part of this domain and the American Society of Health-System Pharmacists (ASHP) states that a pharmacist's mission is to provide pharmaceutical care (2). The ASHP defines pharmaceutical care as "the direct, responsible provision of medication-related care for the purpose of achieving definite outcomes that improve a patient's quality of life" (2). Pharmaceutical care leads to reduced costs of pharmacotherapy and overall costs, for patients. It also has a positive impact on patient safety and well-being (3). To achieve these goals, implementation of pharmaceutical care, especially in developing countries, needs many changes.

First of all, a vast change should be made in pharmacy education and pharmacy educational programs should become more clinical and patient based. This is not easy to achieve and, as Ramanujam and Rousseau said, "The challenges are organizational, not just clinical" (4). Health systems (hospitals, pharmacies, etc.) are complex organizations, due to the high impact of money involved, large number of employees and so on. It is difficult to establish a balance, when these systems are demanded to make money and have the patients' well-being as their first priority (5). A pharmacist has multiple interactions with different healthcare market players, including the investors, drug distributing companies, doctors etc.

What is important is that, to achieve a good pharmaceutical care system, knowledge and skills, beyond clinical base expertise, are needed. "Knowing doing gap" is the gap between the pharmacist's knowledge and practice (6). For implementing a pharmaceutical care based pharmacy, the pharmacist needs to know how to organize the services. This includes management, leadership, organi-

zational behavior, human resource management, organizing, strategic planning, finance management knowledge and skills. Therefore, these domains must be a part of pharmacy education to undergraduates (7, 8). Due to the major role of clinical pharmacists, in education of pharmacy students, practice and policy making, in pharmaceutical care, especially in Iran (9), these knowledge and skills may be more important for this group.

Sackett described evidence based medicine approach for a good clinical practice, based on relevant research, and this approach is the most accepted way of clinical decision making and practice. Evidence based medicine is "the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients" (10). Recently, this concept was used in management and evidence based management is an emerging movement, to explicitly use the best current evidence in decision-making and management (11). This could also be done the other way around. As previously said, the nature and complexity of pharmacy services and large number of studies on pharmacy management bring out the idea of using management knowledge and skills for achieving a better pharmaceutical care system (12).

Although very interesting, this type of research has been very limited, to date (although few studies have been undertaken, several have showed that good human resource management leads to reduced mortality rate in hospitals). Therefore, many studies can be done in this area (13, 14). These studies can also help optimize financial planning and drug distribution (15, 16).

Finally, this approach justifies the publishing, in our journal, interdisciplinary researches of pharmaceutical care and management, leadership, organizational behavior, human resources management, organizing skills, strategic planning, finance planning and other related social sciences studies.

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