

Three Days Analysis of a Pharmacist's Dispensing Behaviour: A Self-professional Ethics Learning Model for Pharmacy Students

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Abstract

Objectives: To study the dispensing behaviour in a private community pharmacy, and examine the value of a self-learning exercise in stressing professionalism at an early stage of pharmacy education.

Methods: Second year pharmacy students were asked to observe for three consecutive days the dispensing behaviour of a pharmacist in a community pharmacy. Collected results were then analyzed and presented for discussion in the classroom.

Results and conclusion: The communication and social interaction skills and knowledge of the pharmacist were rated excellent. These were reflected on the large number of visitors to the pharmacy. The total number of visitors on three consecutive days was 426 individuals with a daily average of 142 visitors per day. Average dispensing time during the 3 days of study was 4 minutes. Clients with prescriptions constituted only 106 (25%) of total attendants with 46 (1.8 %) being children below 12 years of age carrying a prescriptions that were all dispensed by the pharmacist. Only 7% of visitors were seeking medical information while 11% came into the pharmacy to purchase cosmetics, non-medicated shampoos or other health products. Only 7% of all visitors were seeking medical information while 11% visited the pharmacy to purchase cosmetics, non-medicated shampoos and other health products. About 243 (57%) of individuals visiting the pharmacy were without prescription and asked for either a prescription drug by name (19.4%, 83 clients) or an over-the-counter (OTC) drug (37.5%, 160 clients). The pharmacist diagnosed and dispensed prescription drugs to 28 clients (6.6%) of those asking for prescription drugs and advised the rest (55 clients, 13%) to seek medical consultation. Thirty-three (7.7%) clients willingly accepted while 22 clients (5.2%) rejected the idea complaining of the lengthy procedures of making an appointment and waiting for long hours to get a medical consultation. Class discussion of the results emphasized the importance of values, attitudes, ethics and professionalism. These issues cannot be rated on an arbitrary scale, they are either fully practiced or not.

Introduction

Community pharmacies are first line of health care providers and pharmacists practice against the regulations dispensing almost everything without prescription, and are frequently faced with unidentified problems as they commonly selling antibiotics in small doses and prescription drugs such as steroids without medical supervision.

Irrational prescribing by physicians and prescribing and advice by pharmacists on over-the-counter (OTC) medications, in the developing countries, have been identified by a number of researchers long time ago [1-4]. On the other hand, rational drug use embraces not only drug prescribing by a physician but also drug dispensing by the pharmacist. The latter, as a health care provider, should employ his pharmaceutical knowledge and code of ethics to the benefit of the client. Dispensing competency and good reputation of a pharmacist as a source of medical information and provider of ideal health services positively reflects on daily income whereas irrational dispensing may have deleterious consequences on both income as well as reputation. It may also lead to harmful legal consequences.

Most published work on improving drug use in developing countries focuses on the public sector [5], where health workers are essentially civil servants and there are clear lines of authority. There are only few published examples exploring how to improve practice by private pharmacies in Libya.

The present study was undertaken to study the daily dispensing behaviour of a pharmacist. This was done through close supervision

of the unaware pharmacist. This exercise was also used as a self-learning tool for pharmacy students whereby participating students projected their study results and discussed it with the rest of the class.

In developing countries, some of the key features of community pharmacy include the dispensing of prescribed medicines, sale of over the counter (OTC) medicines, advice on the management and use of medicines; and advice on minor ailments. It is worthy of note that community pharmacies may be owned either by individual pharmacists or by institutions, a fact that may well influence attitudes and behaviour.

In many developing countries, the health care system is still evolving and the facilities are predominantly Governmental, offering their services to all citizens. However, the majority of clients obtain their medications from the growing number of private community

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pharmacies. Despite the fact that pharmacy practice in community pharmacies has shown some improvement during the last 15 years, it has not yet fully gained the trust of the public or other health professionals. This would appear to be, as in many countries, due to several reasons, including a perceived lack of professionalism on the part of pharmacists, commercial pressure on community pharmacies, and a lack of enforcement of the regulations governing pharmacy practice within both community and hospital settings [6].

Method

Four third year pharmacy students were asked to record information regarding the dispensing attitude of their training pharmacist on daily basis for three consecutive days in a private community pharmacy. The activity was part of the student's community pharmacy training. The observers were asked to record the following information, using the form previously prepared for the purpose of the study:

- Total number of visitors.
- Average dispensing time.
- Number of Children below 12 years of age.
- Clients with a prescription.
- Clients without a prescription and asking for prescription drugs:
 - Diagnosed and given prescription drugs
 - Advised to consult a physician:
 - Accepted advice
 - Rejected advice
- Clients asking for OTC drugs.
- Clients seeking general information.
- Communication and social interaction skills.
- Knowledge of the pharmacist.

On completion of the study, the results were evaluated and discussed with the pharmacist and also communicated to a meeting of the national syndicate of pharmacists. This was to provoke discussions and increase awareness of pharmacists of rational drug dispensing.

Students participating in the study were asked to prepare power point presentation of their study and present it to the class as self-learning activity. Such an exercise is aimed at emphasizing ethics, professionalism and competency in general at an early stage of pharmaceutical education.

Results

As shown in Table 1, the total number of visitors on three consecutive days was 426 individuals with a daily average of 142 visitors per day. Clients with prescriptions constituted 106 (25%) of total number of individuals visiting the pharmacy during the 3 days of study. Forty-six (1.8%) of total visitors were children below 12 years of age. The pharmacist dispensed all the prescriptions brought in by children. Average dispensing time was 4 minutes. Only 30 (7%) of all visitors were seeking medical information while 47 (11%) visited the pharmacy to purchase cosmetics, non-medicated shampoos and other health products. More than half of clients, 243 (57%) were without prescription and asked for either a prescription drug by name (19.4%, 83 clients) or an OTC drug (37.5%, 160 clients). The pharmacist diagnosed and dispensed prescription drugs to 28 clients (6.6%) of those asking for prescription drugs and advised the rest (55 clients, 13%) to seek medical consultation. Thirty-three (7.7%) clients willingly accepted while 22 clients (5.2%) rejected the idea complaining of the lengthy procedures of making an appointment

and waiting for long hours to get a medical consultation.

Almost all of the student investigators rated the communication and social interaction skills, in addition to knowledge of the pharmacist as either very good or excellent during the three days of the study period.

Student's discussion in the class covered the rules for dispensing prescription drugs, dispensing medications to children and the role of the pharmacist as health care educator and provider. Also discussed are the behavioural ethical principles of the profession.

Items	Response frequency n (%)
Total number of visitors	426
Average number of client per day	142
Average dispensing time	4 Minutes
Number of Children below 12 years of age and with prescription	46 (1.8%)
Clients with a prescription (including children)	106 (25%)
Clients without a prescription and asking for prescription drugs:	83 (19.4%)
- Diagnosed and given prescription drugs	28 (6.6%)
- Advised to consult a physician:	55 (13%)
- Accepted advice	33 (7.7%)
- Rejected advice	22 (5.2%)
Clients asking for OTC drugs	160 (37.5%)
Clients seeking general Medical information	30 (7%)
Individuals asking for hygiene & health products	47 (11%)

Table 1: Frequency of pharmacist's activities and behaviour of the clients.

Discussion and Conclusion

Community pharmacies, in many developing countries, are the main source of drugs. The role pharmacist in health care system and the implications of their services on the overall health of any nation have been addressed clearly in WHO report since the 1990 [7]. The site of pharmacy usually affects the number of visitors. Pharmacies near medical centers, private clinics and with easy access to pedestrians and nearby car parks usually receive large numbers of consumers. In the present exercise, the daily large number of visitors to the pharmacy was attributed to previous reasons and also to popularity of the pharmacist. The investigator students who rated communication and social interaction skills and knowledge of the pharmacist as excellent raised this explanation. Based on this, competency may also be rated as outstanding. However, the dispensing attitude of the pharmacist as judged by short dispensing time, dispensing prescription drugs to children and diagnosing client condition and dispensing prescription medication without a prescription is against the health regulations in most countries. Again, competency based on this attitude may be rated as very poor. The behaviour of the pharmacist does not seem consistent with the general Codes of Ethics for good pharmaceutical conduct. Similar behavior was also reported in developing country [1]. The latter study reported that banned products such as dipyrone and hydroxyquinolines continue to be marketed, prescribed, recommended by pharmacists and requested by clients.

The dispensing behavior presented here share many characteristics

with developing countries. While advising about 13% of the clients who are asking for prescription drugs to seek medical consultation, the pharmacist deliberately diagnosed the conditions of almost 6.5% and freely prescribed and dispensed to them prescription drugs. Professionalism of pharmacists has been the subject of many studies [8,9] and various measures were used to assess professionalism [10]. Exposing students at an early stage of their studies to the real daily practice of community pharmacists and allowing them to assume responsibility for collecting, analyzing and interpreting observational data on pharmacist actual dispensing behaviour is a self-learning process of professionalism. In such an exercise, the students realize through personal experience the importance of values, beliefs, attitudes, skills, knowledge and professionalism. These have to be implemented in current and future pharmacists if practitioner pharmacists are to provide professional pharmaceutical care [9,11,12]. It has been claimed that values permeating professional practice can be discovered by empirical investigation [13]. Class presentation of the results of this student simple exercise promoted interesting discussion of competency of pharmacists in relation to its various aspects and the final conclusion derived emphasized the fact that essential issues like values, ethics and professionalism cannot be rated on an arbitrary scale. These are either fully practiced or not. In conclusion, exposing pharmacy students to the daily practice of senior practicing pharmacists and allowing them to build up their judgment on professionalism and ethics stresses such issues more convincingly than discussing them through theoretical lecturing in a class.

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