Experiential Learning: Pharmacy Practice in England Through an American Student's Eyes

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ABSTRACT. Purdue University's Introductory Pharmacy Practice Experience (IPPE) Program requires second professional year pharmacy students to work or volunteer in a pharmacy practice setting. After introducing the program criteria, students are encouraged to create their own practice experiences. One Purdue student completed her IPPE requirement in a small community pharmacy in Swadlincote, England. Upon conclusion of the experience, the student discovered a number of interesting differences between pharmacy practice in England and the United States, including manufacturer packaging, pharmaceutical law, dispensing procedures, insurance and government programs, and pharmacist's educational requirements. Experiences, such as the ones described here, help students learn about the practice of pharmacy in other countries, as well as provide valuable insights and an opportunity to improve practice in the United States. doi:10.1300/J060v13n02_06

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INTRODUCTION

The Introductory Pharmacy Practice Experience (IPPE) program at Purdue University was developed in response to accreditation standards set forth by the Accreditation Council for Pharmacy Education (ACPE) to provide early experiential learning opportunities for pharmacy students throughout the curriculum (1). The Purdue IPPE program includes four distinct graduation requirements: the Professional Service Experience for first professional year pharmacy students, the Practice Skills Experience for second professional year pharmacy students, and the Shadowing Experience coupled with the Patient Services Experience for third professional year students. Ms. Koritnick's experience, described in the following sections, fulfilled her Practice Skills Experience requirement. She completed this training during the summer following her second professional year of pharmacy school.

The Practice Skills Experience requires students to spend a minimum of 80 hours in a pharmacy-based practice setting during or directly following the student's second professional year in the pharmacy program. Students are encouraged to create their own experiences rather than choose from a list of local pharmacy opportunities. By creating their own initiatives, students gain ownership of the experience and bring back unique experiences that local pharmacies could not offer. They then share these unique experiences with fellow students and a faculty mentor in small group discussion. Students make all arrangements for travel and housing. Experiences must be pre-approved by the Director of IPPE. The supervisor on-site is responsible for assessing the student's performance. In addition to the 80 hours of hands-on training, students complete a comprehensive reflective worksheet, a write-up on another student's experience and participate in a three-hour Debriefing Day lab module. The objectives of this assignment directly correlate with the Purdue school-adopted General Outcome Abilities and Professional Outcome Abilities (2, 3).

The ultimate goal of the Practice Skills Experience is for students to develop an understanding of professional issues and develop pharmacy skills in an actual practice setting. Additionally, these types of experiences, when shared with peers, provide students with a broad view of

pharmacy career options and the ability to distinguish advantages and disadvantages of each option. Following is a description of how one student fulfilled her Practice Skills Experience requirement in a small community pharmacy in England and the differences she discovered between pharmacy practice in England and the United States.

DISCUSSION

Dean & Smedley's Family Pharmacy is a small pharmacy located in the pedestrian shopping district of Swadlincote, Derbyshire, England. The area is bustling with people going about their daily errands, having lunch at the local pubs and stepping out to enjoy the English summer. Dean & Smedley's sits on the corner of a major intersection of several footpaths and is clearly marked with a large green cross indicating that it is a pharmacy. The interior is smart and clean, with many cosmetics, perfumes, and other products on display in the front windows. The standard pharmacist attire is a suit, while the technicians and beauticians wear white smocks or a dress shirt and tie. It was surprising to see that British pharmacists do not wear the classic white lab coat that signifies our profession. The head pharmacist, who is also the store manager, was enthusiastic about having me, an American pharmacy student, train in his store as part of my Purdue pharmacy early experience requirements. We both acknowledged this would be a mutually beneficial learning experience. He offered me a cup of tea and escorted me to the work area. After introductions to the staff, I was ready to begin.

Many citizens in the United Kingdom (UK) receive health care from the National Health Service (NHS). The NHS had its humble beginnings in the mid-1940s, but the need for affordable health care for all people was realized as far back as the early nineteenth century. It was true that the poorest working class had free access to doctors as long as they were employed, but this did not generally apply to the wives and children of these workers. Often, many would forgo treatment solely due to the inability to pay. In 1828, a young surgeon named William Marsden opened a small hospital in London that would provide free health care and medicines to any impoverished person. Within a few decades, Marsden found his facility so overwhelmed that the hospital had to ask patients to make financial contributions towards their treatment, once again making health care unaffordable for many. Despite the seeming failure of Marsden's free clinic, a movement had begun to make health care a right for all people, rather than a privilege for a few (4).

A little over a century later and after many other attempts at free services, the NHS became a reality on July 5, 1948. Hospitals, general practitioners, dentists, optometrists, and pharmacists were united in providing services within one organization. The NHS was originally intended to be free of charge to all citizens, but soon had to require a small fee to stay functional. The bulk of funding for the NHS today comes from public taxation. The NHS still requires a small fee-for-service, but maintains that quality care should be available to meet the needs of everyone, care should be free at the time of service, and services should be based on clinical need, not the ability to pay (5).

The NHS covers all forms of health care, from hospital visits to eye exams to prescription medications. Unless exempt, the out-of-pocket cost for each NHS prescription order is £6.50 (about $11.17 at the time of writing) (6). Persons exempt from prescription drug charges include: those under 16 years of age and those over 60; those 16, 17 or 18 years old and in full-time education; those with a valid maternity exemption certificate (also covers 12 months post partum); those with a valid medical exemption certificate; those with a War Pension exemption certificate for disabled veterans; those with a valid prescription pre-payment certificate; those requesting birth control products (which are free under the NHS); or those who qualify under the NHS Low Income Scheme. Pharmacists are required to ask for evidence of exemption when they receive the prescription. There is an area on the back of the prescription to indicate which type of exemption they qualify for and whether sufficient proof was provided (7).

An interesting situation exists when a combination drug is dispensed. Patients are required to pay two prescriptions charges, as in the case of a hormone replacement drug called Cyclo-Progynova® which contains both estradiol and levonorgestrel. In contrast, most insurance companies in the Unites States will charge only one co-pay for a combination product. Combination products are not as commonly dispensed in the United Kingdom as they are in the United States (8).

There are standardized prescription blanks used by all practitioners in the NHS that come in different colors; green for general practitioners and hospitals, yellow for dentists, blue for detox prescriptions for drug abuse, and lilac for supplementary prescribers such as extended formulary nurses (9). British law mandates that only prescriptions for controlled substances, referred to as CDs (controlled drugs), must be handwritten. Thus, nearly all nonscheduled prescriptions are typewritten. This procedure abates many prescription errors commonly seen in the United States. Most prescriptions are not given refills. Exceptions are referred

to as "repeat prescriptions." Repeat prescriptions may be utilized when treating a patient for a chronic condition. The repeat prescription consists of a covering prescription and a series of "batch issues," one for each refill. The physician must indicate on the covering prescription how many repeats, or issues, he/she is permitting. The batch issues must be labeled with the number of the batch (e.g., 6 of 12). Both the covering prescription and the batch issues are printed like prescriptions but only the covering prescription is considered a legal document and is the only piece signed by the prescriber. The batch issues are used as documentation for the pharmacy (10, 11). CDs are placed into schedules similar to those we use in the United States. CD prescriptions are never refillable no matter what the schedule (12).

Prescriptions are generally written by the generic name. An organization within the NHS called the Prescription Pricing Authority (PPA) negotiates with manufacturers that want to sell their drugs in the United Kingdom, ensures that products are of a specified quality, and sets reimbursement rates to pharmacies for their products. In the case of venlafaxine, for example, the reimbursement rate is based on the brand name Efexor® or Efexor XL® (Effexor® in the US). This means that whether generic venlafaxine, Efexor®, or another brand name of venlafaxine is dispensed, the pharmacy is reimbursed a predetermined amount (13). This practice drives pharmacies to negotiate with approved manufacturers for the best deal (14). Thus, if the best deal is on Faxine®, another brand of venlafaxine, most pharmacies will stock Faxine®, while other pharmacies may carry only the generic. Most prescriptions are written generically so the pharmacy can fill it with the product currently stocked.

Although many of the same drug entities exist in both the United States and the United Kingdom, brand names often differ. For instance, the brand name for fexofenadine marketed in the United States by Senofi-Aventis as Allegra®, is sold in the United Kingdom by the same company as Telfast®. Zyrtec® is spelled Zirtek® and Claritin® is Clarityn® but they contain the same chemical entities. Occasionally, even the chemical name is different, as in the case of paracetamol, which we refer to as acetaminophen. Additionally, the United Kingdom has approved generics for many medications that remain brand name only in the United States. These differences may present a challenge for Americans visiting the United Kingdom.

In contrast to U.S. manufacturer packaging methods, most medications in the United Kingdom are dispensed in "calendar packs" (blister packs of 28 tablets or what might constitute a normal course of antibiotics).

These calendar packs are subsequently packaged in individual boxes. This makes both dispensing and checking an easy task. The pharmacist ensures that the correct medication is being dispensed per the prescription order and that he/she is not dispensing a split box (unless necessary). The correct label is then applied and the pharmacist bags the prescription for the patient.

In the United Kingdom, many of what we refer to as over-the-counter medications are actually located behind the pharmacy counter. This allows pharmacy staff to interact with patients, recommend an appropriate product, and inform patients of contraindications and/or interactions. The pharmacist may choose not to sell these products to a patient if he/she deems it to be in the patient's best interest or may recommend a patient see a doctor before allowing them to purchase the product. This is in direct contrast to the flurry of what were once prescription-only drugs in the United States that may now be purchased over-the-counter without ever consulting a pharmacist or physician. These include medications to decrease stomach acid, relieve allergy symptoms, and treat vaginal yeast and fungal infections.

Another interesting comparison between UK and US laws involves direct-to-consumer prescription advertising. UK laws state that advertising is only allowed when directed at health care professionals. UK regulations prohibit issuing any advertisement to the public likely to lead to the use of a prescription medication. The law applies to all forms of advertising, including UK-based Internet Web sites. The rules, however, do not prevent the issue of information to the public about prescription drugs or general health issues, as long as the material does not promote a particular product or brand. The prospect of direct-to-consumer advertising and its potential financial impact to the NHS is of concern to many health care professionals in the United Kingdom (15, 16).

Students aspiring to become pharmacists in England must pass a four-year Master of Pharmacy (MPharm) course at a qualified university followed by a year of practical training in an approved hospital or retail pharmacy or a split placement with six months spent in industry and six months in a hospital. This is known as "pre-registration training" or the "pre-reg year." Other degrees such as a BSc in Pharmacology or BSc in Pharmaceutical Sciences prepare students for a research career, but do not lead to professional registration as a pharmacist. UK pharmacy students take classes similar to those required in the United States, such as pharmaceutical chemistries (organic and inorganic chemistry), pharmaceutics (preparation of medicinal products), and pharmacology (physiology and biochemistry). Finally, after completion of the

didactic work and pre-registration training, the student must pass an exam, similar to the state board exams in the United States, to register with the Royal Pharmaceutical Society as a practicing pharmacist (17). British pharmacy students spend long hours studying the British National Formulary (BNF)–the cornerstone reference traditionally used to prepare for the exam. It is also the primary reference used by most practicing pharmacists in the United Kingdom. The BNF is a joint publication of the British Medical Association and the Royal Pharmaceutical Society of Great Britain and published biannually. The BNF provides information on the selection, prescribing, dispensing, and administration of commonly prescribed medications and clearly identifies medications considered less suitable for prescribing. Little information is included on medicines promoted for purchase by the public. Although several US pharmacy references are considered "gold standard," most are not as clearly recognized as such, when compared with the BNF.

Technicians are required to complete special training courses in order to make recommendations for nonprescription products. Other pharmacy support staff includes the pharmacy assistants and medicine counter assistants, the latter of which primarily collect prescriptions to be filled and function as a cashier (18). These staff members may also sell non-prescription products and must undergo training (19). The pharmacist always has the final approval in the product selection.

An interesting program that Dean & Smedley's offers is the Fresh Start Smoking Cessation Program. The seven-week course requires a patient come to the pharmacy each week and talk with a trained technician about how much he/she smoked that week, the trigger(s) for his/her craving, and how to avoid giving in to a craving. At the end of the first session, following a series of questions, the technician chooses an appropriate nicotine-replacement product for the patient (e.g., patches, lozenges, inhaler) based on his/her professional opinion and the patient's preference. Each patient has his/her carbon monoxide reading taken each week as a more visible measure of the patient's success, which motivates them to continue on the path to quitting. The counseling is free of charge. In exchange for participating, the weekly nicotine-replacement therapy is available at NHS prescription cost, or no charge if exempt. During my experience, patients exhibited gratitude for reduced charges on smoking cessation supplies. One customer, who was at the end of her seven-week course, was saving her "cigarette money" to have the Christmas holiday in Spain she had always dreamed of. The pharmacy also benefits from the Fresh Start Program. The NHS

pays Dean & Smedley's £20 (approximately $34) for each person that enrolls in the pharmacy program and £50 (approximately $86) for each patient that successfully completes the program and quits smoking. As one of three pharmacies in the area that offers the service, Dean & Smedley's generates additional revenue and attracts new clients (20).

As in the United States, there is currently a demand for pharmacists in the United Kingdom. Pharmacist salaries are generally less in the United Kingdom than in the United States. The difference is more prominent when taking into account the higher cost of living in the United Kingdom. Still, UK pharmacists' incomes are above the national average (21). The pre-registration year generally pays between £12,000 and £17,000 (approximately $20,500-$29,000) opposed to the unpaid experiences typically required in the last year of US Pharm.D. training. After about three to four years, a retail pharmacist in the United Kingdom can expect to earn an average of £16.00 (approximately $27) per hour with the range of salaries between £20,000 and £40,000 annually (approximately $34,000-$69,000). Senior hospital pharmacists may earn over £40,000 annually. Those choosing a career in industry can expect higher salaries. Managers of very large retail pharmacies may reap salaries upwards of £60,000 a year (approximately $103,000/year) (22). Some British pharmacists have undertaken additional training to become "supplementary prescribers" who have limited prescribing authority. This new endeavor allows pharmacists to prescribe medications for conditions such as diabetes, hypertension, or asthma, excluding prescribing rights for any controlled substances (23).

What does it take for a US pharmacist to become registered in the UK? With a US Pharm.D. degree in hand, an application, and a £556 (approximately $951) fee to the Royal Pharmaceutical Society of Great Britain will begin the process. Once the adjudicating committee approves the applicant's prior degree, he/she must enroll in a one-year Overseas Pharmacist Assessment Programme, complete with required exams. Requirements then necessitate completion of the 12-month pre-registration training required of all UK MPharm graduates (24).

CONCLUSION

Experiences such as Ms. Koritnik's encourage students to think beyond the everyday assumptions of pharmacy practice in the United States. Such international experiences provide a backdrop for students to discuss variations in practice and how US pharmacy practitioners can

learn from these differences. For example, physician use of typed or computer-generated prescriptions (standard practice in the UK) rather than the typically seen US handwritten prescriptions is certainly a relevant discussion topic in pharmacy classrooms, considering upcoming electronic prescribing regulations in the United States and current efforts to reduce the risk of medication errors. Another difference in practice standards might prompt a discussion on the advantages and disadvantages of keeping certain nonprescription products behind the counter, as is commonly done in the United Kingdom. By exploring these differences, students begin to formulate how they may want to change standard practice behaviors. When promoted in the curriculum and shared among peers, study-abroad introductory practice experiences provide valuable learning opportunities to pharmacy students.

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