STUDENT PERCEPTIONS ON EXPERIENTIAL LEARNING WITHIN THE B.PHARM CURRICULUM IN NIGERIA

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ABSTRACT

Within the undergraduate pharmacy curriculum for the bachelor of pharmacy (B.Pharm) degree in Nigeria, experiential learning is covered under the Student Industrial Work Experience Scheme (SIWES). The aim of this work was to describe student experiences during SIWES with a view towards identifying problems and recommendations that could be used for improvement. The study was descriptive in nature and utilized qualitative data obtained from students of Ahmadu Bello University, Zaria and University of Maiduguri, Borno. Participating students (151) had completed the 4th year of their B. Pharm degree and undergone their SIWES attachment during the 2015/2016 academic session. They were given 10 questions and asked to answer them either by writing a reflection (essay) or in the form of an open ended questionnaire, data collected was then analyzed using summative qualitative content analysis. Respondents mostly did their attachments in hospitals (71.5%) and community pharmacies (24.5%). They generally believed that they would be exposed to the practical aspects of what they had earlier learnt theoretically, and over half of students reported feeling that their expectations had been met. Patient interaction in the form of counselling was the most enjoyable activity reported by most of the respondents. Conversely, it was also the biggest difficulty encountered. Other difficulties experienced by the students included problems locating drugs on the shelves and learning about the various drug brand names and dosages available. Recommendations on how to improve the scheme included; prompt payment of their stipend to offset transport costs, incorporating more experiential learning opportunities into the curriculum and making it mandatory for students to rotate amongst various practice settings. In conclusion, while students generally had positive perceptions of the scheme, several aspects could be improved upon.

Keywords: Experiential learning, Nigeria, Perceptions, Pharmacy Education, Students.

INTRODUCTION

Experiential learning can broadly be defined as a process through which students develop knowledge, skills, and standards of behavior from direct experiences obtained from a variety of settings both within and outside academic settings (Faculty Innovation Center, n.d.). It is an important part of the curriculum for a wide variety of science and art courses at both undergraduate and postgraduate levels all over the world (Faculty Innovation Center, n.d; Facdev, 2012). While it can occur within the traditional classroom setting, when students are given opportunities to learn in real life situations within the community like those provided by placements, internships or
similar experiences, learning becomes significantly more powerful. Properly structured experiential learning programs can motivate students, teach them real world competencies and help solidify classroom learning (Facdev, 2012).

Within the undergraduate pharmacy curriculum for the bachelor of pharmacy (BPharm) degree in Nigeria, experiential learning is covered under the Student Industrial Work Experience Scheme (SIWES). The 6 month long program funded by the Nigerian government aims at helping students develop specific industry based skills necessary for a smooth transition from the classroom to the workplace, and participation is a necessary pre-condition for the award of the BPharm degree (ITF, 2008). Depending on university guidelines, pharmacy students in the country can either split their SIWES placements into 2 (semester breaks after the 3rd and 4th years) or do the 6 month period as a single stretch. Students are allowed to do their placements in organizations specializing in several areas including community pharmacy practice, hospital pharmacy and industrial pharmacy. The aim of this work was to assess student experiences during this scheme with a view towards identifying problems and recommendations that could be used to improve the scheme.

METHODS

The Study was descriptive in nature and utilized qualitative data from written material collected from students who had completed the 4th year of their BPharm degree and undergone their SIWES attachment during the 2015/2016 academic session. Participating universities were Ahmadu Bello University (ABU), Zaria and University of Maiduguri (Unimaid), Borno both located in Northern Nigeria. Students were given 10 questions and asked to answer them either by writing a reflection (essay) about their experience or in the form of an open ended questionnaire. This choice was necessary to encourage student participation as some students were uncomfortable with the idea of essay writing. Questions asked include reason for choice of SIWES place/institution, what they believed they were going to learn versus what they actually learnt, most enjoyable aspects as well as difficulties experienced. Others included adequacy of classroom learning in preparing them for the scheme, whether their views on the pharmacy profession had changed after their participation and recommendations on how to improve the scheme in future. The manifest content of the written responses was then analyzed using summative qualitative content analysis with similar responses grouped together and reported.

RESULTS

Data was collected from 151 respondents whose SIWES locations were scattered all over the country. Majority of respondents did their attachments in hospitals (71.5%) and community pharmacies (24.5%). Students from ABU were doing their attachments for the first time, while those from Unimaid were being exposed to the scheme for the second time (They had done their first attachments after their third year). Only 6 out of 53 Unimaid students reported choosing their second attachment location in a different area of practice from their first attachment. Majority reported choosing their attachment location because they believed that these sites had a wide range of training facilities (e.g. hospitals with several different pharmacy units and a wide variety of drugs available) and trained staff that could aid their learning. Proximity to their homes was the other major factor that was considered by the students. They generally initially believed that they would be exposed
to the practical aspects of what they had earlier learnt theoretically, and over half of students reported feeling that their expectations had been met.

**Views on quality of training and supervision**

Respondent views on the quality of supervision and training they received from their SIWES institution was mostly positive. In addition, while over 85% of students felt that classroom learning had adequately prepared them for the attachment, several respondents felt that there were notable disparities between classroom learning and what they actually experienced in practice.

**Changed views on profession**

A little over half of respondents reported a positive change in their perceptions of the pharmacy profession at the end of the scheme. These students reported now possessing a wider view of the profession than they had earlier held.

“My views on the pharmacy profession changed after the training because initially, I had always had it in mind that pharmacy is a profession that one won’t be proud of, and its practice limited to distribution, sales and dispensing of drugs. After my enrolment in this scheme, it gave me a wider view about the profession and opened up my mind that the practice is not only limited to sales and distribution but provision of services including patient counselling and education.............”

“My views on the profession really changed after (SIWES), because of challenges I came across during the attachment both from other members of the healthcare team and patients who were very literate about their drug therapy. All of these challenges have changed my mentality of reading for the sake of passing exams and then forgetting after. I now have motivation to concentrate more............

Most of those who reported a negative change in their views did their attachments in hospital settings. The reoccurring complaint was of underutilization of pharmacists within hospital settings (limited to dispensing with little or no provision of pharmaceutical care)

**Enjoyable aspects versus difficulties experienced**

Respondents generally enjoyed fulfilling what they perceived as their professional roles as learnt from the classroom. Patient interaction in the form of counselling was a particular favorite activity. Conversely, it was also the biggest difficulty encountered by majority, especially when they were trying to implement pharmaceutical care. Reasons for this include “impatient” patients, large patient volumes and apathy of some pharmacists working at the attachment sites.

“Patient counselling was the most interesting part of the experience.............because it was the aspect where I applied my classroom knowledge the most...........”

“Getting used to the customers themselves due to the impatient nature of humans was a great challenge. I had to develop emotional intelligence............”

They also reported enjoying both formal (presentations) as well as informal interactions/ discussions with pharmacists and other healthcare professionals during the attachment period. Several students reported increased confidence in their presentation skills as they were also made to present talks on a variety of topics. Most enjoyable hospital unit postings were to compounding units as well as antiretroviral therapy treatment clinics.
Other difficulties experienced by the students included problems locating drugs on the shelves and learning about the various drug brand names and dosages available. Students who worked in community pharmacies also reported difficulties with diagnosing patient ailments and drug selection for their customers.

Suggestions on how to improve the scheme
The most popular suggestion proffered by the students of University of Maiduguri was prompt payment of their stipend to offset transport costs to the IT locations, while the most popular suggestion from the other students was incorporating more experiential learning opportunities into their curriculum and making it mandatory for students to rotate amongst various practice settings. Improved supervision by institution based supervisors and increasing the number of their visits was also recommended. Various means of restructuring the scheme and better including it within the curriculum were also suggested. These measures include a compulsory orientation before the start of the course and better integrating it within the usual semester system (Doing the attachments during normal academic semesters). In addition, allocating/increasing credit units attached to the course and restructuring presentations and exams that normally accompany the attachments were also proposed.

DISCUSSION
Experiential learning is an integral part of pharmacy curricula all over the world. It is often structured and carried out several times during the undergraduate pharmacy program, with students gaining experience in different aspects of pharmacy practice (Dornblaser et al, 2016). It has been known for a while that learning from classroom lectures is insufficient to prepare students for actual pharmacy practice (DiPiro, 2008). Therefore, optimizing learning experiences outside the traditional classroom setting is paramount if young pharmacists equipped with the relevant knowledge and skills are to be trained.

Findings from this study would seem to suggest that the SIWES program as it currently stands has several shortcomings. Students from one university were exposed to the scheme only once, and even though students from the other university were exposed to the SIWES attachment for the second time, only 6 out of 53 students reported choosing their second IT location in a different area of practice from their first attachment. This was possible because there are no guidelines mandating students to experience pharmacy practice in more than one setting. This is of particular importance for those who had negative experiences during the attachment period, as they could ultimately end up with negative views of the profession before they even begin practicing. Furthermore, while respondents views on the quality of supervision and training they received from their preceptors was mostly positive, Most of those who had negative views of the profession after the experience and some of those who had difficulties implementing pharmaceutical care reported negative preceptor attitudes as some of the influencing factors. Role modeling is an important factor that is predictive of student practice behaviors after graduation (Hammer, 2006), thus, creating specific guidelines/requirements for preceptors and SIWES locations may also be useful.

It can be argued that the patient is the primary customer of pharmacy education, because without the patient, there is no need for the profession (Holdford, 2014). A lot of respondents in this study reported difficulties with patient counselling which is
particularly worrisome. While some of these difficulties were due to environmental constraints unique to our setting (large patient volumes and inadequate staffing), students reported experiencing considerable difficulties with the patients themselves. For students to effectively communicate with patients and provide optimal pharmaceutical care, they need to have a good understanding of patient needs, concerns and drug use behavior (Blom et al, 2014). In addition, several strategies have been developed by pharmacy schools worldwide to improve student communication skills (Wallman et al, 2013). Improving the didactic components of the curriculum in these areas might improve the students’ communication skills and improve their practice. In addition, use of teaching aids like model pharmacies will introduce the students to available drug strengths & brands as well as drug arrangements on shelves and help them with learning.

Several of the recommendations proffered by the students are actually in line with what obtains in other parts of the world. A Pharmacy faculty in the United States developed an experiential learning program within normal academic semesters, and was able to optimize preceptor availability, develop desired student competencies and exceed the minimum number of hours required by their accreditation standards (Wuller and Luer, 2008). This is perhaps a model that these faculties could explore, and which could also prove beneficial in offsetting student transport costs, and in turn allow students a broader choice of training locations. Furthermore, in other parts of the world, experiential learning attachments are started earlier on in the pharmacy degree program and students normally have several attachment opportunities (Wuller and Luer, 2008; Zeitoun et al, 2014). With the recent introduction of the Doctor of Pharmacy (Pharm.D) degree to Nigerian universities, proper curriculum design (of the new degree) can ensure that these areas are improved upon. Finally, while SIWES is actually a course and has credit units and grades attached to it, students reportedly felt as if it was not a “serious” course for several reasons including the fact that no one usually ever failed it. Properly structured attachment(s) with relevant objectives and outcomes that can be properly assessed should improve students’ engagement and help them obtain maximum benefits.

In conclusion, students generally had positive perceptions of the scheme and reported improving on their drug knowledge & patient counselling and presentation skills. However, several problems were also identified. Several of the recommendations proffered by the students are fair, and can actually be implemented to maximize the benefits of the scheme.

REFERENCES


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