



TECHNICAL REPORT
ON
STUDENT INDUSTRIAL WORK EXPERIENCE (SIWES 1) UNDERTAKEN AT
ALPHA PHARMACY
59 OGBUNABALI, PORT HARCOURT, RIVERS STATE

BY

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A STUDENT INDUSTRIAL WORK EXPERIENCE SCHEME REPORT SUBMITTED TO

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DEDICATION

This work is dedicated to THE ALMIGHTY GOD for His care and protection over my life throughout the three months of my S.I.W.E.S. program. It is also dedicated to my parents Mr. and Mrs. O.S.B. Jack for their endless support financially and otherwise to my academic pursuit.

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With gratitude I want to acknowledge the almighty god first for his guidance, protection, love, towards me and my family all though the period.

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ABSTRACT

This reports holds a review of the student industrial training work experience at Alpha Pharmacy, Ogbunabali Port Harcourt.

It contains the work experience and knowledge gained during my stay in the pharmacy.

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CHAPTER ONE: SIWES

INTRODUCTION

SIWES was established by Industrial Training Fund (ITF) in 1973 to solve the problem of lack of adequate practical skills preparatory for employment in industrial by Nigerian graduates of tertiary institution. The scheme exposes student to industry based skills necessary for a smooth transition from the classroom to the world of work. It affords student of tertiary institution the opportunity of being familiarized and exposed to the needed experience in handling machinery and equipment which are usually not available in the educational institution. Participation in SIWES has become a necessary pre-condition for the award of Diploma and Degree Certificates in specific discipline in most institution of higher learning in the country, in accordance with the education policy of government.

1DEFINITION OF SIWES

SIWES is the Student Industrial Work Experience Scheme students are out annually to professional organization relevant to their course of study with the help of the institution based coordinator. The scheme takes up at the end of the first year during the ND program for science oriented course, study in polytechnics.

PURPOSE OF SIWES

In the earlier stage, students are graduating without any technical knowledge or working experience and this makes them to undergo further training after securing an employment. With this reason, student industrial training was established.

During this program, as designed by the ITF, students are expected to get technical assistance and acquire more experience scheme in their chosen field of study and exposed them to the usage of source machines and safety precaution where relevant before the completion of their program in their various institutions.

AIMS AND OBJECTIVE OF SIWES

- To provide an avenue for student in the Nigerian Institution to acquire industrial skills and experience during their course of study.
- To prepare students for the work situation they are likely to meet after graduation.
- To expose the student to work method and techniques in handling equipment and machinery that may not be available in their institution.
- To allow the transition phase from school to the world of working environment easier and facilitate students contact for later job placements.
- To provide student with an opportunity to apply their theoretical knowledge in real work situation thereby bridging the gap between theory and practice.

CHAPTER TWO: COMMUNITY PHARMACY

DEFINITION

Community pharmacy, also known as retail pharmacy, is the most common type of pharmacy that allows the public access to their medications and advice about their health. Traditionally known as a chemist, it is the healthcare facility that is responsible for the provision of pharmaceutical service to a specific community group or region.

RELATIONSHIP TO INDUSTRIAL TRAINING

The student stands to learn so much from community pharmacy because the pharmacist will always be on the ground to guide the student throughout the process.

Community pharmacy normally teaches students business operation, sales, marketing, stock control, personnel training, consultation and public health awareness. Most community pharmacies have units within. It is best to rotate spending at least two weeks in each unit for better knowledge. However, some students prefer to be well grounded in one aspect thereby staying in the one or two unit throughout the program.

The basic knowledge that student should learn in a community pharmacy is how pharmacist handles patients or guides who come to get drugs with or without prescription. This should also include how pharmacist treats minor infections including prescription and management. Others in drug dispensing, monitoring of side effects, patient counselling, drug utilisation, and adherence. Drug logistics activities include facility renovation, drug quantification, procurement, distribution, and storage and data management. To maintain the quality of drugs, drugs are stored in warehouses or rooms at manufacturer's recommended temperatures.

TYPES OF COMMUNITY PHARMACY

Hospital pharmacy

They are found in hospitals, clinics, health centres etc. Each hospital is supposed to be divided into sub-units that vary from one health facility to another. Their activities normally involve procedures and operations in out and inpatient pharmacies, clinical pharmacies, therapeutic drug monitoring, total parental nutrition, oncology pharmacy, store pharmacy and drug information centres. Some hospitals pharmacies compound medications for patients' administration. Some of the processes are complex hence needs the experts' hands.

The activities of students are generally to collect card and organised drugs according to the doctor's prescription calculating the dose with the appropriate dose. The students spend time with the pharmacist during dispensing learning more on counselling.

Industrial Pharmacy

There are very few industries in this part of the country. Even the few that exist produce mainly liquid dosage form. This could be the main reasons why many students do not go to industries for their IT. However, the few students who do IT in pharmacy industries have a lot to learn

which covered most aspect of pharmacy. Unlike community and hospital pharmacy that improve on students' knowledge of clinical and pharmacy administration, the industrial pharmacy also includes knowledge on pharmaceuticals.

Just as the former, pharmaceutical industries also have units that is responsible for different things in the industries that student can learn from. Students learn the stages of drug development, which have been taught, will soon be. The industry can also include production in which case Active Pharmaceutical Ingredient (A.P.I) mixing with other recipients at the appropriate amount. This involves weighing, drying, granulation, compression, and not forgetting to package. The method the company use in observing Good Manufacturing Practice (G.M.P) should not be excluded. Tablet manufacturing companies' do further testing of batch products such as friability test, hardness, weight, disintegration time, hardness, etc. That is not all, as a student should learn about drugs produce and drug monitoring, marketing strategies and other after sales service like customer care

ROLES OF COMMUNITY PHARMACIES

1. Processing prescriptions.
2. Checking for drug interactions.
3. Dispensing medications.
4. Disposing of medication.
5. Providing advice.
6. Promotion of healthy lifestyle

CHAPTER THREE: THINGS LEARNT AND DONE

• DRUGS

DEFINITION; A drug is any kind of medicine or chemical that changes your body or brain function.

DRUG TYPES

LEGAL DRUGS: these are drugs that are given with doctor's prescriptions, over the counters or from health professionals. Some of these drugs have side effects and can be appealing to those who don't have medical reasons to take them.

ILLEGAL DRUGS: these are drugs that are not gotten from health professionals or with doctor's prescription and are taken illegally. These drugs fall under depressants, stimulants, hallucinogens.

• CLASSES OF DRUGS

The shelves were arranged according to the class they fall under in the categories listed below;

Antimalarial: drugs used in the treatment and prevention of malaria which is caused by female anopheles mosquitoes e.g. arthemether, lumefantrine, quinines, artesunate

Gastrointestinal drugs: drugs used to treat pains and infection that occurs along the gastrointestinal tract e.g. antacids, laxatives

Antifungals: drugs used to treat fungi infection e.g. griseofulvin, terbinafine, ketoconazole

Antibiotics: drugs used in the complete destruction of bacteria that cause harm in the body leading to infections e.g. azithromycin, ciprofloxacin

Antihistamines: drugs used treat various allergic reactions in the body caused by allergens or things a patient is not compatible with e.g. loratadine, dexamethasone

Analgesics: drugs used to treat and manage different types of pain e.g. tramadol, paracetamol, indomethacin, aspirin

Antiretroviral: drugs used to manage human immunodeficiency syndrome e.g. lamivudine, zidovudine, nevirapine.

Antivirals: drugs used to manage viral infections e.g. ritonavir, rimantadine,

CNS drugs: these are drugs that have effects on the central nervous system e.g. diazepam, amphetamines, ketamine

Antidiabetics: drugs used to manage diabetes (lack of or little production of insulin in the body) e.g. glimepiride, glipizide,

Antihypertensive: drugs used to treat hypertension otherwise called high blood pressure in the body e.g. amlodipine, Lisinopril

Antineoplastic agents: drugs used to manage various forms of cancer e.g. methotrexate, inotuzumab

Supplements: drugs that supply various vitamins and minerals required by the body especially if there is deficiency or little supply e.g. vitamin E, vitamin A,

Hormonal and fertility drugs: drugs used to replace reproductive hormones or enhance them especially in patients who have hormonal imbalance or having difficulty in conception

- **SHELF ARRANGEMENT OF DRUGS**

I was taught on how drugs are arranged based on their pharmacological actions. Drugs are classified according to the classes they belong to. This is done to prevent confusion and having easier access to these drugs and to prevent dispensing wrong drugs. I learnt some drugs lose their action when exposed to certain temperatures and so are kept in different sections for instance some eye drops are to be stored in environments 2°C and more.

- **DIFFERENT MACHINES AND THEIR USES**

I was exposed to different machines and how they are used. These includes;

- ❖ Nebulizers for asthmatic patients
- ❖ Blood pressure machine for checking blood pressure levels of patients.
- ❖ Glucometers for checking blood levels of patients
- ❖ Hematocrit machine used to check haemoglobin levels of patients

- **COUNSELLING PATIENTS**

I was taught on how to counsel patients concerning their medications making them see reasons enough on why the medication is taken, why it is taken in required dose, why it is necessary to finish required dose. Although I had a little problem explaining how these medications were to be taken I was coached by the superintendent pharmacist and I got better at it.

- **DISPENSING MEDICATIONS/ PRESCRIPTIONS**

I was taught how to interpret prescriptions to patients indicating the right amount required for their consumption. Telling them when and how to take them or how they will be applied.

- **DOSES OF SOME OVER THE COUNTER DRUGS**

I was shown regular doses of over the counter drugs like paracetamol, vitamin c which sometimes are written on the body of these drugs except the doctor's prescription says otherwise. Examples antimalarial drugs containing arthemether and lumefantrine are to be given as the second dose to be taken 8 hours after the first and taken twice in a day for three days, paracetamol depending on the strength is taken two tablets three times a day for 5 to 7 days for an average adult.

- **INVENTORY**

I was shown how to record daily events that occurred in the pharmacy from the morning to night for different months or weeks to know the daily activities and monitor the spending of the staff in the pharmacy.

- I also learnt how to participate in stock counting where you count drugs remaining or expired to purchase new ones. It is usually done once or twice every year. Although regular checking of shelves is advised

CHAPTER FOUR: SUMMARY

SUMMARY

The Industrial training helped me become familiar with drugs I haven't come across in my life. I got to know how some drugs worked and how they were administered as well as taken in the body. It made subjects easier for me to understand when I came back to school. I was shown how to handle some equipment and how to use them on patients.

PROBLEMS ENCOUNTERED

Most problem encountered were as follows:

- Not every class of drugs was sold in the pharmacy.
- I wasn't able to prescribe drugs because I was an I.T. student undergoing training and I didn't have the necessary idea on how to prescribe drugs.
- I wasn't allowed to handle some prescriptions reasons unknown to me.

RECOMMENDATION

The pharmacy is a good ground for IT students to learn a lot about classes of drug, their doses, their contraindications and much more. I would highly recommend Alpha Pharmacy as one of the companies to be as an IT student. Despite having to not know these people, they were well accommodating and gave me the reason to come back as an IT student or even to work there after I graduate.