Evolution of Pharmacy

From the beginning to the future

Digital Skills and Research Methods BMSW4003_LON Introduction

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2. Development of pharmacy from Antic Era to Modern times;
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Pharmacy today and tomorrow …

Half a decade, the pharmacy didn't hesitate to service the population, recognized as the best professional from the entire time. All the information collected on this time medicine learned and discovered more with the time. In those days in the community of pharmacists, you find mixed nationality, when before was only the most excellent people with high education. Today pharmacists in retail are using computers or tablets to fill a prescription with the benefits of work of large branches. Same as this domain, all the family generation are following the future stature, which may be as well teacher, singer, doctor. Pharmacy is a health science that links medical science chemistry—charged with the discovery, production control, disposal, safe and effective use of drugs.





Practice of pharmacy requires knowledge of drugs, their mechanism of action, side effects, interaction, mobility, toxicity.
The scope of pharmacy is to compounding and dispensing the medicine (traditional roles) or clinical services to divide more drugs informations.
The work of pharmacy can regarded as an antecedent of the modern sciences of chemistry and pharmacology before the formulation of the scientific method.

From antiquty to modern times

Ancient humans have learned from instincts and observation. Testing them could find out if it works or not, later on, applied the benefits to others like him. Those people using what nature gives to them, such as plants, mud, water, or leaves.

Numerous patients have been giving to the medical professional different names from apothecary to the one which we are currently using, pharmacy. Each country finds ways to evolve independently, and we try to list them:

In China, according to Shen Nung 2000(bc), he was the one who tests on himself around 365 plants, which has considered as a drug.

Egyptian medicine –" Papyrus Ebers"(1500 B.C.). A collection of 800 prescriptions mentioning 700 drugs.

Greek is presenting the first "father of botany," a scientist called Theophrastus in 3000(bc). Ancient Babylonia (2600 B.C.)- earliest known record of the practice of the art of apothecary (priest, pharmacist, physician all in one)

Rome – Mithridates VI (100 B.C) –the royal toxicologist, Pendanious Dioscorides (first century A.D.), Galen(130-200B.C.), Damian and Cosmos (300 A.D.) – pharmacy's Patron Saints.

Middle Ages – Remnants of the Western knowledge of Pharmacy and Medicine were preserved in the monasteries (400-1100);

The first apothecary shops – Bagdad (700 A.D.) –separated the art of apothecary and physician ;

Ibn Sina (Avicenna-980-1037 A.D.) the “Perdian Galen”;

Sicily (1240 A.D.) –pharmacy separate from medicine in Europe;

Florence (1498) –the first official pharmacopeia;

British Isles 1617) _The society of apothecaries of London;

America – Louis Heber(1605) –apothecary to New France (Canada), John Winthrop (1640) –The Governor who healded the sick, Christopher Marshall (1754), Pennsylvania(1752) - The first hospital in colonial America, The Philadelphia College of Pharmacy (1821);

Germany –(1880) –perfected the purification of individual organic compounds;

Chloral hydrate - introduced as a sleeping aid (1869)

Penicillin – Alexander Fleming (1928);



IMPACT OF TECHNOLOGY



After the second world war due to demographic growth and increasing demand, the pharmaceutical industry focused on research, modern development, and distribution.

Computers and biotechnology allowed escalation forward in development and production.

The IT-enabled, the storage of record, facilitate the electronic prescribing, dispensing and administration of medicines, automate the handling of drugs in the supply chain, and provide tools for monitoring the efficiency and safety medicine in use.

The internet became so popular. In the future, there may be an increase of internet pharmacies and the use of the internet to display information about pharmaceutical products.

Electronic prescribing and discharge systems automate prescribing, supply and administration to reduce errors.

Mobile technology used to remind patients to repeat prescription and evolved apps developed for disease monitoring like asthma and diabetes.



17th-century ideas of rationalism and experimentation and 19th-century industrial revolution impacted the development of the pharmaceutical industry with the introduction of new technology;In 1827 began the transition towards and scientific concern by manufacturing and selling alkaloids;In 1859 Beecham became the world's first factory to produce only medicines;The beginning of the 20th century marked the separation from chemistry by focusing on the production and distribution of newly discovered medicines such as aspirin, insulin and penicillin; In the past 50 years, technology has a massive effect on people.

Industries have readily accepted technology, which gives them the Benefits of information. Electronic prescribing systems automate prescribing supply and administration of medicines in hospitals, where it proves to reduce Medication errors and have a significant impact on patient safety.

Seeing the GP by computer or phone makes our lives more comfortably and Fast. People with a health problem that cannot go out now have the opportunity to helped everywhere Medicine is giving us the chance to have an idea about what the drugs.

contain before we take under consideration and about the Consequences. Another advantage of new technology is automation, which is about a company that permits to automate functions that previously required employees. Tasks like data entry, analytic, bookkeeping and, contact management can be partial or completely autonomic, which allows the business to work efficiently without human errors.There is a reason that computers replaced typewriters, paper emails, and faxes. Communication is king, and companies are continually looking to improve and accelerate dissemination, a new technology built with that need in mind. Investigating a new system will help to work smooth both communication (internal and external).

Challenges before the introduction of modern technology

• When you need medication, there is no difficulty in going to your neighborhood pharmacy.

• Entering data into a computerized system
requires less time than paper-based approaches,
and it reduced the risk of errors,
inpatient data and financial details.

• The utilization of mobile telephones is Widespread in society. Challenges before the
introduction of modern technology



Conclusions

1. BACKGROUND OF THE ORGANISATION

• The pharmacist has access to keep the data for all prescriptions dispensed and prescription Medicines supplied.
• The doctors and pharmacists are currently using the internet to support the work daily and Keep the record of each patient and the drug prescriptions. Over the years, humans have
Been struggling with the consequences of each mistake they have made. Medicine sometimes cannot help every people apart, but unless doctors or pharmacists give them the chance to survive.

• Prescription drugs monitoring program(PDMP), which collects controlled substance prescription data are operational or under development in most states. The information contained in a PDMP can help doctors and pharmacists to ensure the safety of all patients
when prescribing and using controlled substances.
• Nationwide currently has access to all PDMP and permit pharmacists or doctors to verify patients safely and without any risk of overdose or mistake

Trought the history of pharmacy has always been linked with the development of other fields such as chemistry, medicine, biology, etc. Pharmacy has a vital role in the improvement of quality of life.
With the introduction of modern technology, the pharmaceutical industry has known a exponential growth and will continue benefiting humanity in the future.





2. How it works,where and mission

Pharmacies association and hospitals. Most pharmacists work in association and hospital pharmacy: pharmaceutical production or sales in the industry.

Primary care organizations are universities in teaching and research, the military, prisons, veterinary pharmacy and, pharmacy organizations.

They will improve health and reduce illness through patient-centered quality healthcare that is accessible and seamless, comprehensive, appropriate, and cost-effective, in an environment of continuous learning and relevant research. To provide safe, high-quality patient care in an atmosphere of professionalism, respect, and effective communication.



3. The Goals of Medical Treatment and How They Affect You

You and your doctor will want to determine one or more treatment goals. Whether you get a disease or condition, or suffering from symptoms, have flu, have developed diabetes or cancer, or have injured yourself in an accident or a fall.

All of these require treatments that are in 4 categories, but each of these has pros and cons:

Preventive (giving a vaccine to prevent any definite disease which can cause death)

Curative (if in the word way someone has diagnostic of any illness by giving the treatment hoping to return in good condition)

Disease management (some disease cannot cure and, the goal, in this case, is to maximize patient longevity and quality)

Palliative (we need to give them the comfort they need. But some patients prefer to have the right to die with dignity).



Ioana Pantiru (1914744)

(Slides1,2,3)

Our slides discuss the most popular organization from all the times. We have six subjects who will address. As a group, we decided to talk about the pharmaceutical industry. Same as the rest of organizations still between them appear that "fight" for popularity. But the history of pharmacy is way too deep to be discussed in only 15 slides. So with that, we try to present a short story of what we read and understand. Each slide presents just a little part of the story of medicine and how they approach and find a way to use it. To show us what they are offering, credible, and at the same time accessible for selling. Technologies will never stop growing the same as the industry of pharmacy developing ways to be bigger and bigger. If we will have every opportunity to help our people we have to do it as an appreciation for they're work and to show them respect! Even if a lot of scientists have functional purposes and are trying to help people or save them, media and politician are" jumping" on their backs without trusting the work. Scientists were proving that their view of the world is correct.



Myrna Morales (1917110)

(Slides4,5)

With the old information which has found a long time ago plus the new searching, new businesses evolve to improve health and wellness. The idea of how this industry we can find and what is the purpose of doctors or pharmacists against us. When you need a medication, there is no difficulty for you to go near your neighborhood pharmacy.

However, neighborhood pharmacy is a source for many other helpful goods. So the modern pharmacy can also be considered as a shopping experience, offering quality products on retails starting from gifts, cosmetics, snacks, nutritional supplements (Collingwood,o.2014). We can mention how, in the middle ages, religion had a significant impact on the evolution of pharmacy, as many practice were forbidden and considered heresy. In this period, a considerable amount of knowledge has lost, the priests and monks being the only practitioners by cultivating and gathering medicinal plants. The practice of pharmacy requires understanding and knowledge of medicine, as well as they work and how they interact with the human body.Herbalism may cover contemporary standards of effectiveness testing to herbs and medicines received from essential sources. Herbalism is the subject of botany and the use of medicinal herbs. They have been the basis of therapeutic remedy through much of the human past, and such traditional medicine is still widely practiced today.



Valentina I.(1913754)

(Slides 6,7,8)

Industrialization – the development during the Second World War to the discovery and use of new drug substances. What is the relationship between the pharmacists and the doctors? Deliberate doctor-pharmacist collaboration within specific clinical settings significantly improves patient care.

IT can, therefore, improve patient safety, enable professionals to provide high-quality care, and help patients make the most of their medicines. What is the PDMP, and does it improve to save the lives?

The internet is a useful tool to improve communication between brands and costumes, so that's the way a pharmacist can use the technologies in their daily work. Of course seeing the GP has both its pros and cons. With the demographic increase as well as the overall development of industry, pharmacy knew a significant increase in productivity. To match the exponential growth in demand; therefore, usage of technology became a vital part.



Lenuta S.(1912289)

(Slides 9,10,11)

Pharmacists play a significant part in their instruction by leveraging technology to provide patient care services and medication treatment management MTM. Which represent the range of health care pharmacists services . Neighborhood pharmacy is a source for many other helpful goods and, so the modern pharmacy can also be considered as a shopping experience, offering quality products on retails starting from gifts, cosmetics, snacks, nutritional supplements(Collingwood, O.2014) .

Accessing patients records digital also allows codding medical experts to work from home, increasing efficiency productivity. Variety apps have developed for disease control, for example, recording of peak flow reading in asthma, monitoring of blood glucose levels, medication adherence support, and health education.



Ginka B.(191531)

(Slides 12,13)

The factory, which was producing curtains, for example, has to adapt to the new situation and start to create masks, dressing gowns, hats to keep the business, running, the supplies, and essential stuff for hospitals. Our body is a very complex and unique machine, and it has possibilities to heal and repair itself. We are advanced about medicine, but we are just beginners. We don't know a lot of things about diseases, the human body, connection with nature. Our medicine is in the stage of helping the body. We still have to discover and learn a lot about how the body works and manage to recover differently.

Furthermore, the pharmacy is responsible for educating and providing a variety of training, educational programs, courses, and presentation to the employers, employees, and people involved in the pharmaceutical sector. To prepare them as a professional refresh, they're skills and knowledge. They are making them competitive, responsible, and competent professionals.



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