

A Study on the Dynamics of Technology and the Future of Pharmaceutical Industry

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ABSTRACT

Purpose: *Information technology has influenced every part of life, including work. Technology's incorporation into our daily lives has made living far simpler and more convenient. As a result, the assumptions were to assess the influence of new technology on the pharmaceutical sector, both favourable and negative. The goal of the research is to determine the importance and effect of the technology that are designed in the pharmaceutical sector. The pharmaceutical industry started to implement the IT techniques that can help patient care and also in storage the data of the patient. This paper concentrate on the various implemented technology in the pharmacy field also the current using techniques, and determining the future trends in the pharmacy fields. And finally discussing about the impact in the pharmacy industry.*

Objectives: *To study the role of Information Technology used in Pharmacy industry, and view on various techniques used in pharmaceutical sector.*

Methodology/Design/Approach: *The analysis and the application used in the pharmacy sector are done by referring various research paper, articles. A Literature Survey is done.*

Findings/Result: *Pharmacy started to use the latest technology that can help patientcare. The use new technology and the impact of it are discussed.*

Originality/value: *Based on the secondary data available, the paper focus on the new technologies and impact of pharmacy sector.*

Type of the Paper: *Review paper.*

Keywords: Pharmacy, Automation of Robotic Processes, Telemedicine, Automated dispensing units

1. INTRODUCTION :

Information technology has influenced every element of life, including every profession of work. Incorporating technology into our lives has made living much easier and more convenient. IT can assist the pharmaceutical business in storing patient records, prescribing medication, dispensing and administering medicines, and improving patient safety. Pharmacists are currently using IT management systems for dispensing, labelling, and recommending medications. However, many pharmacies are not utilising their IT systems to their full potential, and could be doing so much more, such as executing prescription interventions or providing additional patient services. The internet has also provided a new chance from other pharmacies and now can communicate globally. Since there is huge increase in the health-related data and information in the electronic manner, this has been one of the newest technologies in the healthcare. Pharmacists should take advantage of the technological advancements available to promote patient engagement, efficiency, patient safety, and communication.

2. NEW TECHNOLOGIES ARE BEING WELCOMED BY PHARMACISTS :

Patient Engagement and Automation:

Adopting extensive and diverse prescription into a everyday regular life is one of the most difficult problems consumers confront. The co-founder and CEO of Medisafe, states, "It's vital to design behavioural and psychological treatments that manage the observe the patients throughout their path during their first medicine filling to renewal." Various platforms now help with dosing, how to take specialised treatments like injections, and how to deal with side effects. In patient-centered care, each patient is referred as unique manner, each patient requirements, and beliefs are acknowledged and addressed. In order to implement such difference in the patient-centered care and professionals health care they need to be in ongoing communications [1].

AI Technologies:

Pharmacies employ a variety of strategies to make use of the massive amounts of data they collect [2]. The traditional way of pharmacy cooperation is to collect the patient's data about the health prescriptions and other characteristics in prescription, thus the many health companies started to use this information and able to identify which are the patients have not taken medicine in the months showing the medicine are not been taken. This gives the pharmacist the opportunity to call or chat with the patient about the importance of taking their medicine as recommended. Big data is also being used by some pharmacies and health insurance firms to anticipate the risk of drug non-adherence. The patient attributes, and the amount of drugs that the intake patient, the total expenses cost of prescription, and the historical load patterns are all factors in this medication adherence prediction model. Advice has been given to the patients by the pharmacist who are diagnosed at people are at high risk.

When a patient is diagnosed as having a high risk of non-adherence to medicine, a pharmacist provides further counselling to help them avoid non-adherence. They emphasise the need, the necessity of the medication, the outcomes of the treatment and consequences in the health, and the price consideration and so on.

Big data is now being used in clinical pharmacies, in partnership with clinicians, in order to design a program to and to anticipate the consequence of the procedure and any fault in the drug usage. Risk models are built to determine treatment results and to detect the faults based on the output and faults on trailing on patients in huge numbers, the data are collected in various factors such as age attributes, gender attributes, the time duration of the disease.

AI is now being used by pharmacists to detect and prevent opiate addiction. Rachael Fisher, PharmD, of Wolters Kluwer Health, which provides evidence-based health information and technology, is a senior clinical implementation analyst, argues that using AI can relieve some of the stress on healthcare practitioners while also improving patient safety. Patients who are at risk of becoming addicted to painkillers and who are prescribed medication, which could imply that they are unlawfully obtaining several controlled substance prescriptions, are at risk. can be identified using national databases and prescription history combined with AI. Additionally [3], AI can identify which are the doctors are who prescribing drugs, enabling for the provision of education.

3. TECHNOLOGY USED IN PHARMACY :

Technology continues to improve and becoming more efficient. Rather than stepping to the doctor's place for a consultation or else you may now video chat with them. Do you need to keep track of your medication schedule? It's as simple as that; Many online application platforms are available, where medical industry concentrates in providing a more efficient way for the patients experience and providing more simplest way. Application platform which are in online source are be more efficiently designed, and the activity tracker, these are patients most used apps. The first major technological advancements focused on tracking prescriptions, minimising documentation, automated prescribe medications, and designing a new style of records management.

Pharmacies can employ a new technique to develop programmes that collects an entirely automated a patient's medication renewal record and cross-reference other prescriptions purchased at different pharmacies, thus it allows the pharmacists to observe the patient. For the security and the health-related conscious about the patient. Since then, technology hasn't slowed down. These four pharmacy developments are diverse and cross-functional.

3.1 Cabinets with Automated Dispensing Units:

A computerised drug storage device or cabinet built for hospitals is known as an automated dispensing cabinet (ADC). ADCs allow medications to be maintained and delivered near the point of treatment while retaining

medicine supply control and recording [4]. This decreases human factor, boosts refill time, and allows staff to focus on patient contact instead of medicine filling.

3.2 Prescription Drug Monitoring Programs (PDMP):

Government restricted drug prescription information collected by PDMPs, which are either operating or in the work. Monitoring the Electronic health record database while refilling banned substance prescriptions is permissible in most states, but strongly advised in others. The data held in a state's PDMP can aid doctors and pharmacists in ensuring the safety of all patients while prescribing and using controlled drugs [5]. The pharmacy department is able to assure the safety of patients and identify any possible excess or abuse hazards as a result of this. From 2011, PDMPs started to collect the data more often. initially, it collected the data only on each month or 2,3 months.

3.3 Medication Therapy Management (MTM):

A pharmacist's review is supplied to the patient via MTM, an online platform for managing a patient's prescription. To identify and treat pharmaceutical concerns, all medicines given to the patient by all prescribers providing care will be evaluated by the pharmacist [6], as well as any over-the-counter and herbal products. Treatment errors, prescription duplication, unnecessary drugs, and the necessity for treatment for an undiagnosed or poorly managed condition are all possibilities. The pharmacist can provide a proper education on the treatment, counselling, and guidance to the doctor or other health care in order to guarantee proper drug usage.

3.4 Devices that Remind You to Take Your Medicine:

Patients can get smart medicine reminders from a variety of gadgets on the market. Reminder gadgets that secure it after intaking the dosage that are needed to take for that time, and it prompts whenever the patients are supposed to take the medicine. Once the medicine is taken the panel is appeared to display the next set of medicine that are supposed to make use of technology [7]. Improvements in pharmaceutical technology help both customers and pharmacists, resulting in a more series of experiences and increased synergy in each phase of the prescription process. As our world evolves, more efforts have been taken to enhance the health if the patient and considering the security process which are more accurate and efficient.

4. TECHNOLOGY TRENDS IN PHARMACY :

Surprisingly the technology in the health-care business is constantly evolving, and the consumption of the data and the automation have created a huge impact on the patients' care and effectiveness of the system. As technology enterprises continue to blossom into a thriving health care industry, new and imaginative systems emerge as products and services that affect the health care system.

In 2020 artificial intelligence and machine learning are sense to have a huge growth in the health care sector, thus it provides almost everything from the states of to support the doctor from detection the cancer till taking meme. This can create a gap between the data utilization of the data and the everyday skills. Innovation have helped in collecting the data that can be used in many agents to share it among them. The exchange of the data into a new technique have created an impact on the health care decision sectors, as well as determine the trends to ensure transparency, improve compensation, and accept cash.

Automation of Robotic Processes:

Robotic process automation (RPA) is a software application that use artificial intelligence and machine learning to design a robot, or any other software that can do all the small works it can do with the greater speed and precision. Thus, the software is able to provide a good efficiency, as a result reliability, cost savings, and powerful data insights have all increased.

The concept of using the artificial intelligence in the RPA have brought a greater extend in the health care sector by providing a supply chain management and planning the time duration of the patients, thus function of RPA results a huge enhancement in economic results. Pharmacist can start to use this application in order to reduce the mistakes are done by humans, and it is able to give a good product of medicine to the patients, thus in return reducing the overall finance cost for the medicine [8].

Apps for mobile devices:

In 2016, CVS introduced the CVS Health programme [9]. This tool analysed data to decide when text messages should be sent to patients with chronic illnesses like chronic myeloid leukaemia and rheumatoid arthritis. The message contains the data of the events as well as the symptoms that were sent at times when the information would have the most impact on behaviour. Based on the latest CVS health report, the company saw a 6.3 percent increase in people refilling prescriptions as a result of this. And also, digital tech businesses like as Capsule are leveraging smartphone apps to distribute medications the same day. Capsule has quickly grown to many customers, demonstrating about the substantial demand for application usage in further.

Telemedicine:

Despite the fact that the number of telemedicine visits in the US has increased in the recent years, most of the american are still practice the formal way of taking care from the health care practitioners instead of through distant techniques [10]. Telemedicine, on the other hand, is a way to reach patient populations that would otherwise be unable to meet agents such a not able to travel since they don't have any transport facilities or it could be people stay in far place from the place of pharmacy.

Telemedicine is able to increase the usage by implementing the usage of various gadgets and application related to pharmacy that can track the patients about the health-related information mostly on the people with the disease with particular conditions and also the chronic disease.

Telemedicine is a software mobile application that is able to create an interface between the patients and the health care providers hence they can have a conversation related to medicine they can contact irrespective of any geographical location. Pharmacy video conferencing allows pharmacists and health care providers to communicate with patients face to face. It not only improves 'med to beds' services, even in the education fields it has brought a huge important role, as well as in consulting. As this technology becomes more accessible and affordable, I anticipate an increase in its use and frequency.

5. LITERATURE REVIEW :

Table 1: Review on Related work

| Author | Title | Objectives | Methodology | Research Gap |
|-----------------------------|---|---|--|---|
| Lei Meng, Jingping Fu. [11] | Application of Artificial Intelligence Technology in Clinical Pharmacy | the modern stage of technique and features for the improvement in artificial intelligence for medical. | The auxiliary examination methods usually helped in identifying the medical activities and it also includes common imaging examinations, electrocardiograms, electroencephalograms, pathology examinations, and routine laboratory examinations. | Deep learning and neural networks can be enhanced. for the construction and improvement of AI-based medical databases, |
| Kathleen A. et al [13] | Effects of technological interventions on the safety of a medication-use system | discussed about the pros and cons about incorporating a new terminology in the new branch of the medical field were investigated in a study | There was a pharmacy computer system, automated dispensing cabinets, and point-of-care products installed. | There were system errors in each phase of the medication-use process, which would have slowed application implementation and increased workload measures. |

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|--|---|--|--|---|
| Matthew Grissinge [17] | Safeguards for Using and designing automated dispensing cabinets | Discussed about the various cabinets with automatic dispensing benefits | Using of ADC in pharmaceutical sector | The immediate implementation has to be taken to improve safety associated with ADCs. |
| Anthony M. Boyd , Bruce W. Chaffee [19] | Critical Evaluation of Pharmacy Automation and Robotic Systems: A Call to Action | The purpose various technologies in the pharmacy sector that can help with information on the data that is technologies that can be implemented and the interactions between providers and patients. | Automation and robotics systems for pharmacies will continue to be developed and marketed at a rapid pace. | Pharmacy is under pressure to conduct rapid cycle reviews and solution implementation in order to meet rising expectations for increased efficiency and lower overall healthcare costs, and maintain or improve patient care quality. |
| Tracy M. Meidl, Thomas W. Woller [20] | Implementation of pharmacy services in a telemedicine intensive care unit | Discussed ICU that is intensive care unit about a hospital health care system. | The using of the ICU in the medical field have given a lot of other opportunities in the good quality way in the health care sectors, and also to increasing the clinic quality and also reducing the cost of the medicine in th ICU and also in many other hospitals. | The remote ICU pharmacists either give recommendations to the hospital-based professionals or the remote ICU team for difficulties. The most common recommendations were for adequate antibiotic coverage and formulary support. |
| Douglas Hillblom, Anthony Schueth, Scott M Robertson, Laura Topor, Grey Low [26] | The Impact of Information Technology on Managed Care Pharmacy: Today and Tomorrow | Understanding how health information technology (HIT) is used and what it means for the future of managed care pharmacy is critical. The ability to transmit data is easier and more intricate than ever before, and it is the cornerstone of providing and monitoring care. | AMCP will be looked upon by managed care pharmacy professionals to innovate and champion the development of HIT applications as well as convey their benefits. | HIT-related issues are anticipated to be addressed by governments and pharmacy boards. At the state level, there are likely to be gaps in e-prescribing of controlled substances (EPCS) rules and regulations that will be remedied. |
| Philip J. Schneider [25] | The Impact of Technology on Safe Medicines Use and Pharmacy Practice in the US | Pharmacists' traditional responsibilities have been to prepare and distribute | In a pharmacy-related setting, high-quality evaluations of new technologies are conducted. We want to see how well these | New technology has allowed pharmacists to spend more time collaborating with other health care |

| | | | | |
|--|---|--|--|--|
| | | medications, but this has limited both their working environment and their available time to collaborate more closely with other healthcare providers to improve pharmaceutical effectiveness and safety. This has been made possible by new technology. | monitoring systems worked in this situation. | experts to enhance medicine utilisation. This is a good thing because almost every patient in the health-care system receives drugs, and there is enough evidence that the utilisation of medicines has to improve. adoption of change is slow |
| Architha Aithal Et al, [31] | Users Perspectives on Online Pharmacy Model | The online pharmacy model is one example of this e-buy model, in which a consumer can purchase a prescribed drug online to take advantage of some of the model's benefits. | The online pharmacy model is analysed utilising the ABCD analytical framework, based on data obtained and a focus group study. | Self-medication and Lack of patient counselling are need to be improved and also In many regions, online services are unavailable. |
| Architha Aithal & P. S. Aithal [32] | The Concept of Ideal Drug & its Realization Opportunity using Nanopharmaceutical Research Scenario | determine the properties of an ideal medicine capable of curing all diseases in the universe Also included are the challenges and opportunities associated with developing such an ideal drug capable of curing all diseases. | the possibility of developing an ideal medication using nanotechnology, which is becoming a universal technology. | The limitations and disadvantages of using nanotechnology in drug development with the goal of creating a perfect drug system |
| P. S. Aithal, Architha Aithal, & Edwin Dias [33] | Blockchain Technology -Current Status and Future Research Opportunities in Various Areas of Healthcare Industry | discovered and studied some of the prospective areas of the healthcare business where blockchain technology concepts can be beneficial. | It has been discovered that blockchain technology aids in the enhancement of quality healthcare services, and numerous study agendas have been recommended to do additional research for patient happiness and comfortability. | Blockchain application in Clinical Trials & Precision Medicine to deliver better information to stakeholders, and Personalizing Healthcare Services using Blockchain in terms of legitimacy, completeness, and ubiquity. |

Don Hamilton, John Hope [12] Automated dispensing units (ADC) are used particularly for the storage purpose as well as to track the usage of the narcotics and many other supplements related to this. The data

are collected in the tracking process thus it helps in preventing in many possible ways. Automated dispensing equipment in inpatient care units to reduce the nurse's time by removing the need for laborious narcotic counts that is night shift. A system of automated dispensing machines was installed in the operating room to increase the effectiveness and management of narcotics and other drugs. The author explained the positive and negative side of automated dispensing equipment. And concluded even though the automated dispensing unit are more benefited also it also useful in the medical system, only with the additional procedure steps the safety for the patients are made more protectable else not, as recommended by the institution that are ISMP Canada and the Pennsylvania Patient Safety Reporting System.

Eyaloren, Ellen R. Shaffer and B. Joseph Guglielmo [14] has proposed a Barcoding in pharmaceuticals, blood products, medical devices, and patients. Barcoding has ability to increase patient security in many different ways, and also determining the patient about the consumption of medicine in precisely, as well as recording the data and storing it. Monitoring the medicine are given in proper ratio by use of new technique, as well as precisely record when the medication is obtained and provided by the nurse. And discussed about the advantages of different technologies aimed at reducing medication mistakes and adverse drug reactions.

Barbara J. Zarowitz [15] developed an automated bar code system, for identifying, collecting, recording, and anticipating the need for clinical pharmacy services by critically sick patients. It is vital to conduct pharmacy practice management research in order to better identify meaningful predictors of clinical pharmacist workload within and among diverse patient populations.

By Michael J. Gaunt, Janet Johnston [16] A quick access to pharmaceuticals, hospitals have adopted the use of automated dispensing cabinets (ADCs). By eliminating the need for patient-specific cassettes, ADCs have enhanced narcotic storage safety, expedited common chores for nurses and pharmacists, and cut expenses. However, there have been a number of concerns raised about their use and execution. And also discussed various methods for safe usage of ADC.

Niteesh K. Choudhry, Alexis A. Krumme, [18] proposed the REMIND that is tested to find a device in the medicine which is cost-efficient in the Randomized Evaluation to Measure Improvements in Nonadherence from Low-Cost Devices (REMIND) experiment. By providing visual or aural signals and establishing positive habits around routine medication administration, gadgets that notify the patient to inform about the medicine according to their prescription. A device as designed in a manner that could to give alerts about when the prescriptions are supposed to be given and also accepting the feedback from the patient and the caretakers and their carers regarding adherence have received special attention. Unfortunately, research on the usefulness of these devices is scarce and inconsistent, and usage of these devices are more efficient in many different conditions. Research has been done and concluded by using a cost-efficient device is able to increase the antiretroviral medication adherence, but there is small proof to enhance the medicine in a good manner in other different fields especially in the current world of naturalistic settings.

Sandra L. Kane-Gill, Joshua D. Niznik [21] explained various concept of telemedicine. Telemedicine has the potential to enhance the role of pharmacist services in the nursing home it helps in reduce the cost and improving patients' outcomes. The State Operations section of the Centers for Medicare & Medicaid Services describes the expectations of the nursing facility consultant pharmacist. Distance limitations to medical care can be overcome through telemedicine. Treatment variability can be decreased when used in conjunction with the right clinical protocols. In a resource-constrained health-care context, providing pharmacy services remotely while still allowing for tailored encounters via telemedicine to address incorrect prescribing and poor monitoring is a viable option for more frequent MR.

Uzzal Kumar Prodhan, Muhammad Zahidur Rahman, Israt Jahan [22] discussed about the telemedicine in Bangladesh. They discussed the telemedicine services in the place where the treatment is necessary in Bangladesh. Survey reports proved that the 94% of doctors are expert in their field, and 74% of normal doctors, consists of 91% of patients and 80% of medical owners in Bangladesh wanted to start telemedicine services in other rural parts of Bangladesh.

Sydney L Littauer, Dave L Dixon [23] focus on the review seeks to give an overview of extant telemedicine models that involve pharmacists providing care via telemedicine as well as enhancing the places of chronic-disease place where this concept is used. And also proved in the area of hypertension, diabetes, asthma, anticoagulation, and depression are identified. The proof for the causes of using the telemedicine models is scant and shaky that have been completed posing major internal and external validity issues. And finally in the ambulatory setting using of telemedicine service is able to increase the care for the patients and able to manage chronic illness patients in rural and urban areas.

Vitalii Pashkov, Oleksii Soloviov [24] identified the usage of blockchain in the pharmacy industry that helps in determine the low-quality in medical products, and also any other rules in implementation of the product, to protect the patient care.

6. TECHNOLOGY AND IMPACT ON THE PHARMACY INDUSTRY :

1) Apps for Digiceuticals:

Digiceutical applications, often known as "digital therapeutics," are smartphone apps [27] that act as an alternative way to cure problems and new diseases. The new concept of using apps in the mobile devices for guiding the procedure of the treatment looks like this are possible in the future world or something like "The Twilight Zone" but this are been existed early itself. According to research done by the American Society of Health-System Pharmacists, mostly half of the pharmacists are may use the app and, in the future, it can be approved and usage of the app will increase in the health care system. The program's purpose is to make regulatory requirements easier for digital health enterprises that have a track record of testing and developing a good product. The FDA's clearance of these technique is still exciting since is able to use for the digiceuticals business, but also for health-care technology in general. The FDA's readiness is initiated with a new concept and advances demonstrate its dedication to providing the good possible care for the patients in the United States, regardless of ever the treatment manner could be.

2) Pharmacies that accept prescriptions by mail:

Customers receive prescriptions through the mail from mail-order pharmacies, which are internet-based pharmacies [28]. Now a days everything is online even the pharmacy are in online manner, but a recent occurrence has brought them to the forefront of the pharmacy world's attention, sending shockwaves through the industry. Almost in a year 1-billion-dollar turnover has been done in the pharmaceutical in the year of 2018. When the purchase was announced, shares of major chain drugstore operators like Walgreens Boots Alliance, CVS Health, and Rite Aid all dropped. In just one day, the losses amounted to \$11 billion. Community pharmacies give value that online pharmacies cannot, imitated with the good health care, and huge market to services have made to greater change over in the antibiotics. The convenience of having your medications delivered to your home is a big selling feature for these online pharmacies. By using the different platforms like ScriptDrop and iOmni, retail pharmacies have able to solve this issue as well. Pharmacies is also capable of in giving a good service that even the online pharmacies are not able to give it, as far as they start using the techniques in order to keep more tough competitive.

3) Artificial Intelligence:

Artificial Intelligence (AI) is the third category, Artificial intelligence (AI) is a discipline of computer engineering concerned with the creation of intelligent machines that perform and react similarly to humans [29]. Artificial intelligence has long been seen as a promising technology and rather frightening concept that has inspired many science fiction films. Typically, the plot revolves around robots who have grown tired of serving humans and have decided to revolt and take over the planet. So yet, no examples of home gadgets like Alexa or Siri becoming violent have been reported (though they may have been scary). AI is still being developed, but it has already proven to be extremely valuable in a variety of fields. AI has been used in the pharmacy sector for the development of the pharmaceutical in later days. Mostly it is used in the pharmaceutical sector is adopting AI to make better judgments and expedite procedures in areas like as research and development, clinical processes, 3D drug printing, mining and organising complicated and abstract data, and mining and organising complex and abstract data.

4) Telepharmacy:

Pharmacists can use Virtual prescription confirmation and live-video consultation for patients using HIPAA-compliant technologies, all while retaining the same degree of pharmacist engagement and connection as in a typical pharmacy. Telepharmacy provides numerous advantages to both pharmacies and patients. Many of these advantages are well-documented in our blog posts and client success stories, as they include, among other things, increased job opportunities, improved access to pharmacy care in underserved communities, allowing small neighbourhood pharmacies to remain open, and improved medication adherence, among other things [30]. At TelePharm, our goal is to improve patients have access to pharmacies throughout the globe by offering the best telepharmacy solutions enable pharmacists to treat more people. Telepharmacy is fast gaining acceptance and developing in the field of pharmacy, despite the fact that it is only authorised in 23 states.

7. FUTURE TECHNOLOGIES :

It is quite curious to see where the pharmaceutical industry goes in the future as it continues to grow and include more technologies. Text alerts, adherence tracking, and telecare, or the use of voice and pictures to help patients give medicine at home, are some of the most prominent IT solutions in the sector. At every point of the patient pathway, pharmacists may use technologies to optimize patient outcomes. Pharmacists are enthusiastic about technology and the digital world. Although remaining up to date with trying to cut digital platforms comes at a cost, the way of improving patient outcomes with connected systems is crucial. To remain relevant with online platforms that integrate the approach to patient care while reducing costs, pharmacists should have a strategy to review technologies to identify what works best for their business. Pharmacists will be forced to evolve as a result of this. They'll have to embrace their role in clinical contexts including prescribing practices, health care, and medical IT. Pharmacists have a big influence on high drug prices and proper patient, which both impact the overall obedience and health management.

World is transforming and enhancing our environment at every opportunity. After all, one of the pharmacist's oath's pillars is to better represent and to provide for their patient, and the pharmaceutical industry has achieved so and therefore should remain to do so. Finally, with pharmacies in many super markets and a focus on lifestyle modifications for chronic medical problems, a modern tech might develop in the coming decade that connects a human's shopping habits to their medications. Consumer shopping habits can be documented through store loyalty cards, which can then be linked to their prescriptions for point-of-purchase advice. If a patient is on a fat medication and purchases red meat, for instance, the technology will detect this through the designed a mobile application might advise them about the fat and calorie content of red meat and provide advice about how to use it properly, including healthy dishes.

8. CONCLUSION :

In order to fulfill the needs for the better healthcare life services, pharmacists needed to use the new technology. Hospital pharmacists may now counsel more patients by providing detailed information about their medicines, dosages, and usage thanks to technological advancements. By eliminating medication errors and maintaining patient medication records, automated technologies can improve patient care safety and also it helps in the prevention while that can happen in by giving wrong prescription to the patient, by keeping the digital record of the patient where it stores all the medicines details. New methods enable pharmacies to deliver greater resources to its personnel, which will aid in the improvement of customer service.

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