International Journal of Multidisciplinary Research and Development
Online ISSN: 2349-4182, Print ISSN: 2349-5979, Impact Factor: RJIF 5.72
www.allsubjectjournal.com
Volume 3; Issue 12; December 2016; Page No. 21-23

Original Research Article: Healthcare & technology: Complement of each other

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Abstract
People today use the internet to manage many aspects of their lives: to shop, learn, socialize and manage finances. This digital revolution has huge potential to reshape healthcare, not just for clinicians through the advantages of digitizing records and test results, but also for patients through changing behaviors. This paper will focuses on different aspects of online medical consultation, patient's behavior & tell us about how healthcare increases in digital world, benefits of different aspects of online medical treatment, how healthcare increase with digital world and how its beneficial in preventing life of people and give them a better and safe lifestyle under the health issues.

Keywords: telemedicine, healthcare, medical technology, telehelath

1. Introduction
People today use the internet to manage many aspects of their lives: to shop, learn, socialize and manage finances. This digital revolution has huge potential to reshape healthcare, not just for clinicians through the advantages of digitizing records and test results, but also advancements in medical technology have allowed physicians to better diagnose and treat their patients since the beginning of the professional practice of medicine. This paper provide the information how healthcare scenario in digital world, Contribution of Information Technology in healthcare, new innovations of medical equipment with the help of technology advantages of healthcare, how technology and medical running with each other as complimentary of other.

2. Literature Survey
Over the centuries, new medical developments and techniques have changed the face of healthcare. The medical field has always brought together the best and brightest of society to help those in need. From treating cancer and delivering babies to dealing with heart attacks, doctors have developed technology and improved techniques. But before decades to now technologies have been rapidly changes and improving medical and healthcare services both. During the 1800s doctors and biomedical scientists developed instruments to examine and understand the body. Devices such as the thermometer, microscope and kymograph revealed how healthy and diseased bodies worked. In 1816, French doctor Rene Laennec invented the stethoscope. This simple wooden tube enabled doctors to hear and diagnose chest diseases. It became an iconic object in biomedicine. Other instruments were developed over the century: the ophthalmoscope saw into specific organs such as the eye and the esophagus; the sphygmograph provided information about organs deep inside the body such as the heart. Many instruments became routine equipment. Other machines produced light or heat for heliotherapy and diathermy therapies. Doctors initially used such machines to treat conditions such as gout, paralysis and toothache. However, many were ineffective. Others are still useful therapy. They treat pain, spasms and brain conditions such as epilepsy. A distant relative of electrotherapy is electroconvulsive therapy (ECT, sometimes called electroshock). This was invented in the 1930s and is a controversial treatment for mental illness. ECT in a modified form is still used to treat some cases of severe depression. German physicist Wilhelm Roentgen discovered X-rays in 1895. This changed the way doctors diagnosed and treated disease. X-ray machines became powerful medical tools over the next 30 years, especially during the First World War. Doctors could now see deep inside the body without using exploratory surgery. Assistive technologies became central to medicine during the 20th century. Advances in science, engineering and manufacturing were applied to medical problems. Technologies such as hearing aids, artificial limbs and mobility aids became more sophisticated. Ventilators, pacemakers and other machines were developed to support, enhance or replace the body's organs. Willem Kolff invented the kidney dialysis machine during the 1940s. Using computers was one of the most important technological changes in 20th-century medicine. They became central to medical care from the 1950s. Computerized machines in hospitals monitored patients continuously. They also enabled insurers and state-run health services to track patient records on a massive scale. Imaging techniques such as MRI or PET were possible because faster computers could reconstruct images of the body. More diagnostic tests were developed because automated laboratory machines performed tests quicker and more accurately. Not all new technologies were readily accepted by the medical community. Many were viewed with suspicion. In the 1930s some doctors doubted an X-ray image of the chest was as reliable as a physical examination. Devices threatened to replace the diagnostic expertise of traditional doctors. Many doctors valued their clinical experience over machine-produced information. Other technologies failed because doctors or patients found them impractical. ECG was only useful when it became portable and reliable enough to be used at the patient's bedside.

3. Health Care in Digital World

In today's world, technology plays an important role in every industry as well as in our personal lives. Out of all of the industries that technology plays a crucial role in, healthcare is definitely one of the most important. This merger is responsible for improving and saving countless lives all around the world. Medical technology is a broad field where innovation plays a crucial role in sustaining health. Areas like biotechnology, pharmaceuticals, information technology, the development of medical devices and equipment, and more have all made significant contributions to improving the health of people all around the world. From "small" innovations like adhesive bandages and ankle braces, to larger, more complex technologies like MRI machines, artificial organs, and robotic prosthetic limbs, technology has undoubtedly made an incredible impact on medicine. In the healthcare industry, the dependence on medical technology cannot be overstated, and as a result of the development of these brilliant innovations, healthcare practitioners can continue to find ways to improve their practice – from better diagnosis, surgical procedures, and improved patient care.

4. Information Technology and Medicine

Information technology has made significant contributions to our world, namely in the medical industry. With the increased use of electronic medical records (EMR), telehealth services, and mobile technologies like tablets and smart phones, physicians and patients are both seeing the benefits that these new medical technologies are bringing. Medical technology has evolved from introducing doctors to new equipment to use inside private practices and hospitals to connecting patients and doctors thousands of miles away through telecommunications. It is not uncommon in today's world for patients to hold video conferences with physicians to save time and money normally spent on traveling to another geographic location or send health information instantaneously to any specialist or doctor in the world.

With more and more hospitals and practices using medical technology like mobile devices on the job, physicians can now have access to any type of information they need – from drug information, research and studies, patient history or records, and more – within mere seconds. And, with the ability to effortlessly carry these mobile devices around with them throughout the day, they are never far from the information they need. Applications that aid in identifying potential health threats and examining digital information like x-rays and CT scans also contribute to the benefits that information technology brings to medicine.

5. Medical Equipment Technology

Improving quality of life is one of the main benefits of integrating new innovations into medicine. Medical technologies like minimally-invasive surgeries, better monitoring systems, and more comfortable scanning equipment are allowing patients to spend less time in recovery and more time enjoying a healthy life.

The integration of medical equipment technology and telehealth has also created robotic surgeries, where in some cases; physicians do not even need to be in the operating room with a patient when the surgery is performed. Instead, surgeons can operate out of their "home base", and patients can have the procedure done in a hospital or clinics close their own hometown, eliminating the hassles and stress of health-related travel. With other robotic surgeries, the surgeon is still in the room, operating the robotic devices, but the technology allows for a minimally-invasive procedure that leaves patients with less scarring and significantly less recovery time.

6. Technology and Medical Research

Medical scientists and physicians are constantly conducting research and testing new procedures to help prevent, diagnose, and cure diseases as well as developing new drugs and medicines that can lessen symptoms or treat ailments.

Through the use of technology in medical research, scientists have been able to examine diseases on a cellular level and produce antibodies against them. These vaccines against life-threatening diseases like malaria, polio, MMR, and more prevent the spread of disease and save thousands of lives all around the globe. In fact, the World Health Organization estimates that vaccines save about 3 million lives per year, and prevent millions of others from contracting deadly viruses and diseases.

7. Medical Technology and the Law

As technology in the world of healthcare continues to evolve, rules and regulations concerning its use must be established and adjusted to adapt to the new methods of administering care. Regulations like HIPAA and its Privacy and Security Act target the concerns about the confidentiality of patient information and the steps that must be taken to maintain privacy in our digital world. Medical providers and healthcare administration must be careful when choosing to implement new products and technologies into their services, and should ensure that all technologies are "HIPAA compliant" before investing in their implementation. Other initiatives, like the 2010 Health Care Reform bill, state the steps that must be taken by hospitals and other care providers to integrate medical technology into their practices.

Technological innovations in the healthcare industry continue to provide physicians with new ways to improve the quality of care delivered to their patients and improve the state of global healthcare. Through technology's integration with areas like disease prevention, surgical procedures, better access to information, and medical telecommunications, the medical industry and patients around the world continue to benefit.

8. Conclusion

In an increasingly digitally connected world, new technology allows the field of healthcare to make drastic changes that streamline the system. Software programs enable population statistics to be tracked and can help with diagnoses. Technology is considered to be the driving force behind improvements in healthcare. The use of information technology has made patient care safer and more reliable in most applications. Resource allows medical professionals and researchers to track, retrieve and utilize valuable data in the fight to control disease and provide better healthcare outcomes in general. As with the technology We have seen many positive changes in health IT and expect to continue witnessing more exciting developments in the future!

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