



NATIONAL INSTITUTE OF TECHNOLOGY RAIPUR

ASSIGNMENT 04

Disruptive Innovations in Healthcare

Submitted To:

Saurabh Gupta

Department Of Basic Biomedical
Engineering

Submitted By :

Abhyudaya Kumar Singh

21111004

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1 What is Disruptive Innovation?

Disruptive innovation refers to the innovation that transforms expensive or highly sophisticated products or services—previously accessible to a high-end or more-skilled segment of consumers—to those that are more affordable and accessible to a broader population. This transformation disrupts the market by displacing long-standing, established competitors.

2 Disruptive Innovations in Healthcare

Innovation is no stranger to the healthcare sector. New therapies, medical devices, and healthcare management practices are adopted all the time. However, up until fairly recently, examples of disruptive innovations in healthcare were far less common. What is disruptive innovation, and what impact do these disruptions have on the healthcare industry? Disruptive innovations are those that cause radical change and often result in new leaders in the field. They overturn the usual way of doing things to such an extent that they have a ripple effect throughout the industry.

Technology is the biggest driver of many disruptive innovations in healthcare since every aspect of healthcare is dependent on some form of tech. From wearables and mobile phone apps to big data and artificial intelligence (AI) use in diagnosis, any new technology could potentially shake up healthcare.

3 Examples of disruptive innovation in healthcare

3.1 Consumer devices, wearables, and apps

In the past, a patient could get only biometric data about their pulse, heart rate, blood oxygen, and blood pressure when they went to the doctor's office. Now, consumers take charge of their own health journey, using data gathered from their Fitbits, smartwatches, and mobile phone fitness apps

3.2 AI and Machine learning

AI applications can manage patient intake and scheduling as well as billing. Chatbots answer patient questions. With natural language processing capabilities, AI can collate and analyze survey responses. AI will probably increase in use as a way to bring down healthcare costs and let doctors and staff focus on patient care.

3.3 Blockchain

Blockchain is a database technology that uses encryption and other security measures to store data and link it in a way that enhances security and usability. This innovation facilitates many aspects of healthcare, including patient records, supply and distribution, and research.

3.4 Internet of Things(IOT)

There are nearly endless use cases for IoT in any industry. Healthcare is no exception, both in terms of patient care and patient experience. IoT devices can gather all sorts of valuable patient data and are becoming more sophisticated and ubiquitous.

3.5 Electronic Health Records (EHR)

Electronic health records (EHRs) have been a growing part of patient care since the adoption of the Affordable Care Act. The massive amount of EHR data goes far beyond patient health records, however, and can be used to conduct research, improve care, build AI applications, and create new business opportunities.

3.6 Telemedicine

COVID-19 has undoubtedly accelerated the delivery of telemedicine, and experts affirm that telemedicine is here to stay. It's effective, doctors will be reimbursed for a telehealth consultation, and many patients prefer it.

3.7 Home monitoring applications

Patient self-assessment and self-care have become a key part of healthcare innovation since widespread smartphone adoption created easy internet access.

4 Conclusion

When it comes to healthcare, we see disruptive innovation as essential. Scientific advances, technological improvements and shifting patient demographics create an environment of constant change. Without disruption, healthcare systems and organisations not only get left behind, but community health and wellbeing also potentially suffers.

The COVID-19 pandemic highlighted the importance of disruptive innovation. As the pandemic spread, healthcare systems globally scrambled to manage patient care, implement contact tracing and attempt to limit the spread.