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ROLE OF TECHNOLOGY IN TRANSFORMING PHYSIOTHERAPY

Physiotherapy

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ABSTRACT

BACKGROUND: Pick a physiotherapist out of the 19th century and transport them into a modern 21st century physiotherapy set up and it would be a thoroughly recognisable place, with the same hierarchy of diagnosis and treatment . Patients treated as helpless and were completely ignorant of their illness. Although the medical culture is similar, there have been dramatic technological advancements in physiotherapy profession. This paper aims to investigate the role of technological advances in the field of physiotherapy.

METHODS: Various articles have been reviewed from Google Scholar to study the role of technology in transforming physiotherapy profession.

RESULTS AND CONCLUSIONS: The main story is that the future will be better. Technology will further advance and there will always be new and exciting solutions. We have intelligent decision aids to improve diagnosis and treatment and they will not get better as Moore's Law says that the speed of innovation is increasing. Hence, advancements in the field of physiotherapy is establishing a connection between better learning and better treatment options for the patients.

KEYWORDS

Berg Balance Scale, 3D Visualization, Biofeedback

Pick a physiotherapist out of the 19th century and transport them into a modern 21st century hospital, with the same medical culture but with dramatic technological changes, and actually these changes would be hard to explain.

Healthcare is driven by Technology more than any other force, and it will continue to develop in dramatic ways in upcoming future as well. Although video gaming has been associated with many negative health consequencies, but it also helps in improving various health outcomes, particularly in the areas of physical therapy and psychological therapy.

Physiotherapists commonly use standardized rating scales such as Berg Balance Scale (BBS) to assess gait, balance, and functional activities but a precise assessment of impairment level of balance and gait is often difficult to obtain. But now, movement monitors worn on patients during functional balance and gait assessments allow accurate assessment of balance and gait impairments to guide physiotherapist's in rehabilitation. The added balance and gait measures can precisely measure how and why functional performance is impaired. It also provides opportunity for immediate biofeedback provided to patients that can focus attention and enhance treatment efficacy.

3D Visualization has improved the possibilities of facilitating understanding of complex phenomenon in physiotherapy. The 3D images/films stimulates the students will to understand more and helps to get insights about biological variations and different organs size, space and relation to each other. 3D Visualizations based on authentic, viable material point out a new dimension of learning material in physiotherapy.

Over the past few decades, computing and communication technology have changed dramatically and these advances has led to the development of mobile health (mHealth). It can be used to facilitate data collection and to encourage healthcare consumers to adopt healthy lifestyles or to self manage acute or chronic conditions.

In physiotherapy, there has been an increasing focus on enhancing student's abilities to perform clinical decision making skills, specially in intensive care units.

With the aim of teaching students to perform effectively in high stakes intensive care environment where complex integration of information is vital to patient safety, educators are searching for teaching strategies that accurately simulate this environment and its unique challenges. New teaching methodologies are required that strengthen student's clinical decision making process and this is possible just because of advanced technologies.

Moore's Law states that the speed of innovation is accelerating. Some people points that technology is getting faster, better and smaller. The net result is that the future will be better. Technology will advance and there will always be new and exciting solutions. We have intelligent decision aids to improve diagnosis and treatment, and they will only get better.

Hence, healthcare changes dramatically because of technological development. Future technological innovation is going to keep transforming healthcare.

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