Digital Health in MS Management

Improving Quality of Life in Multiple Sclerosis

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"Today's AI is about new ways of connecting people to computers, people to knowledge, people to the physical world, and people to people." Patrick Winston
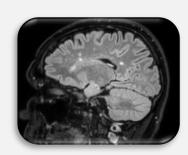
Definitions

- At a basic level, **digital health** equals **the use of technology to improve health care and health outcomes**

- **Quality of Life** refers to "**A patient's general well-being,** including mental status, stress level, sexual function, and self-perceived health status" (Farlex Partner Medical Dictionary © Farlex 2012)

- Multiple Sclerosis is a condition that can affect the brain and spinal cord (our central nervous system), causing a wide range of potential symptoms, including problems with vision, sensation or balance, fatigue, cognitive troubles
  - ➢ **Digital tools** can **help assess disease progression/management and help in improving symptoms**.
  - ➢ **Data generated** can be **useful for research, healthcare and quality of life on a wider level**

Digital Tools 1

MRI & Imaging Tools

Visual representations of :

- the interior of a body for clinical analysis and medical intervention

- the function of some organs or tissues.

✓ Database of normal anatomy and physiology to make it possible to identify abnormalities

✓ Track the development of new lesions

✓ Monitor response to MS disease-modifying therapy.

Medical Devices & Wearables

- Video communication systems (computer-based)

- Sensors

- Speakerphones or phone headset for hands-free function

- Voice recognition software for phone and computer

- Tracking of health data (heart rate, sleep e.g.) with wearables

✓ Assistance and Monitoring in Health

✓ Ensuring autonomy and independence

Digital Tools 2

Apps

MS Management through

- Games (coordination / executive functions)

- Reminders /Agendas

- Tracking and monitoring of MS Symptoms / Disability progression

- ✓ Can offer insight with data generated to Health Care Practitioners

- ✓ Cognitive rehabilitation through playfulness

Data Collection

Data collection is essential to maintaining the integrity of research, making informed health decisions and ensuring quality of HealthCare.

- MS registries

- MS Data Alliance

- BD4BO (Big Data for Better Outcomes)

- ✓ Reliable Statistics

- ✓ Advocating for patients and their needs

The Role of Social Media

Social Media

Social Media Channels provide a platform to connect with other MS Patients, find information, connection with professionals and MS Societies – a crucial first step after diagnosis.

- Facebook Support Groups/ Twitter / Instagram /Youtube / Linkedin

- Shift.ms – the social network for MSers

Attention : We need to mindful with regards to the information found online (Fake news i.e.)

The Importance of Involving Young People

Young People are crucial in the development of digital healthcare as they represent different needs that need to be included.

General Findings:

- Openness to change and trying new strategies

- Tech savvy

- Younger audiences are drawn to their peers

- A digital and online presence makes information available to young people having trouble connecting with a community.

- Multiple Sclerosis is a disease that is most often diagnosed in young adults – thus they also represent a large part of the target audience for digital tools.

Conclusion

Main Points For Improving Quality of Life in MS Management

QoL improves through Digital Health and Digital Tools because they enable and support:

- Assistance

- Monitoring

- Assessment

- Patient Empowerment

- Community

- Innovation

- Independence

- Strong partnerships between HCP and patients

Digital Health connects „people to computers, people to knowledge, people to the physical world, and people to people"