Web-Based Information

- Co-Designing a User-Centered Digital Health Tool for Supportive Care Needs of Patients With Brain Tumors and Their Caregivers: Interview Analysis
- Neuroimaging and neuromonitoring access in Mexico, where to focus?
- The current state of cognitive rehabilitation for individuals with epilepsy and pathways for improvement: a multinational cross-sectional survey of epilepsy specialists
- Brain health PRO/Sante cerveau PRO: The development of a web-based program for dementia literacy and risk factor reduction
- Altered Volumes of the Amygdala and Hippocampus in the Brain of Suicidal Patients with First Episode Schizophrenia
- Interventions to Modify Psychological Processes in Patients Undergoing Spine Surgery: A Systematic Review
- Return to sports after pediatric traumatic brain injury: An expert panel survey
- Critical reflection on the indication for computed tomography: an interdisciplinary survey of risk and benefit management in patients with sepsis

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The increased availability of web-based medical information has encouraged patients with chronic pain to seek healthcare information from multiple sources, such as consultation with healthcare providers combined with web-based information. The type and quality of information that is available on the web is very heterogeneous, in terms of content, reliability, and trustworthiness. To date, no studies have evaluated what information is available about neuromodulation on the web for patients with chronic pain.

The study of Moens et al. aims to explore the type, quality, and content of web-based information regarding spinal cord stimulation (SCS) for chronic pain that is freely available and targeted at healthcare consumers.

Methods: The social listening tool Awario was used to search Facebook (Meta Platforms, Inc.), Twitter (Twitter, Inc.), YouTube (Google LLC), Instagram (Meta Platforms, Inc.), blogs, and the web for suitable hits with “pain” and “neuromodulation” as keywords. Quality appraisal of the extracted information was performed using the DISCERN instrument. A thematic analysis through inductive coding was conducted.

The initial search identified 2174 entries, of which 630 (28.98%) entries were eventually withheld, which could be categorized as web pages, including news and blogs (114/630, 18.1%); Reddit (Reddit, Inc) posts (32/630, 5.1%); Vimeo (Vimeo, Inc) hits (38/630, 6%); or YouTube (Google LLC) hits (446/630, 70.8%). Most posts originated in the United States (519/630, 82.4%). Regarding the content of information, 66.2% (383/579) of the entries discussed (fully discussed or partially discussed) how SCS works. In total, 55.6% (322/579) of the entries did not elaborate on the fact that there may be >1 potential treatment choice and 47.7% (276/579) did not discuss the influence of SCS on the overall quality of life. The inductive coding revealed 4 main themes. The first theme of pain and the burden of pain (1274/8886, 14.34% coding references) explained about pain, pain management, the individual impact of pain, and patient experiences. The second theme included neuromodulation as a treatment approach (3258/8886, 36.66% coding references), incorporating the background on neuromodulation, patient-centered care, SCS therapy, and risks. Third, several device-related aspects (1722/8886, 19.38% coding references) were presented. As a final theme, the patient benefits and testimonials of

treatment with SCS (2632/8886, 29.62% coding references) were revealed with subthemes regarding patient benefits, eligibility, and testimonials and expectations.

Healthcare consumer have access to web-based information about SCS, where details about the surgical procedures, the type of material, working mechanisms, risks, patient expectations, testimonials, and the potential benefits of this therapy are discussed. The reliability, trustworthiness, and correctness of web-based sources should be carefully considered before automatically relying on the content [1].

Digital health tools, including smartphone applications (apps), websites, and online search engines, are increasingly being utilized for health data collection and patient education. Studies have shown that these tools can help disseminate information widely and even help guide patients through acute surgical episodes.

Venkatraman et al. aimed to search the literature to summarize available studies on using digital health tools for patients undergoing spine surgery.

They conducted a systematic review of PubMed MEDLINE, Elsevier EMBASE, and Elsevier Scopus databases, as well as ClinicalTrials.gov up to March 11, 2022.

Forty-four full-text articles were included and qualitatively analyzed. Studies were broadly grouped into those that analyzed the quality of web-based materials for patients, the quality of YouTube videos for spine surgery, the development, feasibility, and implementation of mobile apps for patients, and randomized controlled trials for integrating mobile apps into perioperative care.

They presented a systematic review analyzing the current landscape of digital health for patients undergoing spine surgery. Internet patient education materials in searchable websites and YouTube videos are of poor quality, lacking in readability to the average patient and robustness of information needed for patients to make informed decisions about pursuing spine surgery. However, there lies promise in digital apps developed to guide patients through surgery and collect postoperative outcomes [2].

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Moens M, Van Doorslaer L, Billot M, Eeckman E, Roulaud M, Rigoard P, Fobelets M, Goudman L. Examining the Type, Quality, and Content of Web-Based Information for People With Chronic Pain Interested in Spinal Cord Stimulation: Social Listening Study. J Med Internet Res. 2024 Jan 30;26:e48599. doi: 10.2196/48599. PMID: 38289645.
2)
Venkatraman V, Heo H, Kaplan S, Parente BA, Lad SP. Digital Health for Patients Undergoing Spine Surgery: A Systematic Review. World Neurosurg. 2023 Nov 14;182:70-82. doi: 10.1016/j.wneu.2023.11.035. Epub ahead of print. PMID: 37967741.