

## Abstract

# Design and Development of an e-Learning Patient Education Program for Self-management Support in Patients With Rheumatoid Arthritis

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## Abstract

**Background:** Patient education is integral to the treatment and care of patients with rheumatoid arthritis. Furthermore, change is taking place in the organization of health care systems because of a demographic shift toward aging populations and advancements in digital technologies, allowing for new interventions. However, evidence on how to provide web-based patient education within arthritis is limited.

**Objective:** This study aimed to develop an e-learning education program targeting patients with rheumatoid arthritis.

**Methods:** The development involved content specification and creative design with contributions from the investigators, patient research partners, and experts in communication, digital design, and e-learning. It was theoretically framed within theories of self-management and behavior change, multimedia learning, and entertainment education and empirically based on the evidence of patient education in rheumatoid arthritis and focus group discussions with patients, nurses, and rheumatologists. Finally, we conducted a feasibility test among 10 patients to assess the acceptability and usability of the program to identify areas to be adjusted.

**Results:** The 5 following themes for educational needs were found in focus group discussions: “Knowledge of rheumatoid arthritis,” “The disease course and prognosis,” “Medical treatment,” “A new life situation,” and “Daily life with rheumatoid arthritis.” Based on these themes, a didactic and entertaining e-learning program with a simple user interface was created. It consists of 3 modules covering the disease course, examinations, treatment, and daily life with rheumatoid arthritis. It combines animations, videos, podcasts, text, speech, and tests. The patients who tested the program found it to be feasible—that is, clear in content and easy to understand with a suitable pace and coherence between graphics, speech, and text.

**Conclusions:** This e-learning program is based on solid theoretical knowledge that meets users’ needs and is easy to use. Our study describes possible elements integrated in the development of web-based educational tools that can guide future development processes.

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## KEYWORDS

rheumatoid arthritis; web-based patient education; e-learning; digital health tools; self-management

**Conflicts of Interest**

None declared.

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