Aims of Investigation

This project involves the development of a Smartphone-delivered self-administered cognitive behavioral treatment (CBT) protocol: Fibroline, that is low-cost, accessible and efficient, aimed towards preventing or reducing pain and other negative common symptoms in fibromyalgia (FJS) and chronic widespread pain (CWP) in adolescents and young adults.

The aims of this work are to:

1. describe the purpose and functionalities of this new mobile app, and
2. report on the usability and feasibility protocols used to ensure that the app is easy to use, error-free, and liked by the users.

Different tasks will be requested to complete the treatment modules. Tasks are divided into five sections:

- Resources
- Assessment
- Progress
- Reminders
- Notes

Purpose and functionality of Fibroline

Fibroline is designed to improve the quality of life of those with JFS and CWP. The treatment is condensed in 9 weeks, and the domains of interest (modules of treatment) that are included are the following: life values and goal setting, sleep quality, anxiety management, pain education and coping, medication use, physical conditioning, mood regulation, thoughts management and relapse prevention.

Usability and acceptability testing

With the patient's consent, a health professional can supervise the patient's performance data (e.g., results of the assessment, time spent using the app, time spent reading the resources) in real time by accessing a related website.

Methodology

Usability has been defined as the effectiveness, efficiency and satisfaction with which specific users can achieve a specific set of tasks in a particular environment. The objectives for Fibroline are that the app is (1) easy to learn, (2) error-free, and (3) liked by the end user.

A qualitative usability testing approach with a semi-structured interview was conducted. Standardized instructions on the use of Fibroline were given to participants. The design was iterative, so that the prototype could be refined. A group of patients followed the CBT intervention to test its feasibility. Qualitative data was collected and content analyses were conducted.

Results

The sample for the usability testing was composed by 25 adolescents and young adults with ages between 12 and 24 years old (70% women). Three female fibromyalgia patients (15, 20 and 24 years old) participated in the feasibility phase.

Most liked characteristics: What participants liked the most was that Fibroline has a multimedia content, audio recordings with relaxation techniques, simple and useful instructions and that it is flexible.

Conclusions

Usability and feasibility testing are mandatory to develop a patient-centered App.

Usability and acceptability testing

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