Impact of health education interventions on people with fibromyalgia: a systematic review

Examining the impact of health education interventions on people with fibromyalgia

Commentary on: The effectiveness of adding a Health Education Programme to fibromyalgia Treatment: A systematic review of Randomised Controlled Trials and Meta-analysis. Pain management Nursing 2025, 18: 51

Implications for practice and research

- There is a need to promote health education programmes to reduce the burden of fibromyalgia.
- Further experimental studies are required to strengthen the evidence supporting the impact of health education on pain intensity and quality of life.

Context

Fibromyalgia is a long-term condition that causes widespread pain throughout the body or in multiple areas, fatigue, sleeping problem, and thereby reduce a person's quality of life[1-4]. It can affect any age group, gender, and ethnic background, but common in women than men[4] and often develops between the ages of 25 and 55. Although it has no cure, there is evidence to support the benefits of adding health education to complement the therapeutic management techniques to manage the impact of fibromyalgia[1-2]. Despite the potential benefits of health education, there is paucity of secondary research that focuses on randomized controlled trials. This systematic review examines whether the addition of education improves pain levels and quality of life in people with fibromyalgia[1].

Methods:

In addition to a manual search, databases such as Medline, Scopus, CINAHL, Psych Info, Lilacs between 2005 and 2025 were used to identify the relevant studies. The authors screened 1,261 papers, and the researchers retrieved a final selection of seven articles. A two-stage selection of studies were done by two researchers who independently screened the papers, performed the data extraction and resolved any disagreements through discussion with a third researcher[1]. A fixed effects model was used for homogeneity, and random effects model for heterogeneity. Funnel plots was used for publication bias where possible[1].

Findings:

This systematic review showed that a total of 602 adult participants were included in the selected RCTs and the sample size of the primary research studies varied from 32 to 216 participants. The interventions to which health education was added were pharmacological treatment as usual (N=4) or physical exercise (N=3). The duration of the interventions varied from 6 to 16 weeks, and assessments were carried out during the intervention and at 3, 6 and 12 months post-test[1]. The meta-analysis from this systematic review showed that there is a statistically significant difference in the experimental group for pain intensity ($P<0.05$) and impact of fibromyalgia on quality of life ($p<.001$).

Commentary:

Fibromyalgia is a disabling musculoskeletal disease that increase individual's sensitivity to pain and can easily be misunderstood by the public [1-2]. Despite extensive research, its pathogenesis is not yet well known[2] and there is no current objective biomarkers with sufficient diagnostic accuracy[4]. Although emerging therapies such as non-invasive neuromodulation, and the use of technologies such as artificial intelligence are opening up[2], a medical condition with complex diagnostic criteria and no cure presents unique challenges. The broader literature indicate that non-pharmacological treatment remain fundamental due to the limitations of pharmacological therapy[4]

According to WHO, musculoskeletal conditions contributes immensely to the global need for rehabilitation[3]. Similarly, there is a national and international drive to reduce the burden of long-term diseases due to its impact on individual, family, and the economy. This SR meta-analysis demonstrates that incorporating a health education intervention into fibromyalgia treatment was associated with positive health outcomes[1]. Against the traditional generic pharmacological management, providing health education aligns with national and international best practice for caring for people with long-term conditions.

Although health education strategy showed a significant benefit for the patients, further studies are required to support these findings[1], and prioritise areas such as cognitive dysfunction, the role of gender, environmental exposures, and the impact of the disease on relationships and family life[4]. The limitations of this study include a lack of blinding for patients and educators, heterogeneity of interventions, and utilizing a 20-year search period. Regardless of these limitations, the strength of this study includes a lack of previous SR on this topic. This study further confirms previous literature reports about the benefits of health education in managing long-term conditions, and the findings may support the recommendation to implement health education interventions at local hospitals.

References

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