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Patient education for adults with migraine

Systematic review of patient education and cognitive behavioural treatment for adults with migraine.

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INTRODUCION & OBJECTIVES

Behavioural interventions are a recommended treatment approach for patients with migraine. Published and clinically applied interventions vary regarding their specific aims and contents. The objective of this systematic review is to provide an overview of RCTs on behavioural interventions in migraine populations with a focus on the content and effectiveness of education and cognitive behavioural therapy on pain, disability and psychological parameters.

METHODS

A predefined search using key terms of information sources including MEDLINE, EMBASE, PsycINFO and CINAHL databases. RCTs of the last 10 years (to April 2019) were included. Two reviewers independently searched and evaluated publications. The methodological quality of studies was assed using the Cochrane Rob 2 tool.

RESULTS

Across 11 studies, 1397 participants were recruited (84,2% females). Eight of the studies were acceptable in terms of methodological quality. Characteristics of education are detailed in the table below. Professionals performing education were psychologists. The duration and frequency of education varied (from 3x1h up to 8x2h plus a retreat day). Different educational formats were used (workbooks, questionnaires, audiotapes, face-to-face sessions, online behavioural therapy, clinical visits, telephone contacts). Education was often an adjunct treatment (as part of multi-modal therapy, prophylactic medical therapy, endurance training or relaxation techniques). Outcome measures included those related to pain (headache frequency, attack frequency, medication use (diary), function and disability (MIDAS; HIT-6), and psychosocial parameters (e.g. HADS-anxiety, PHQ-9, Perceived stress scale-10). The heterogeneity of the data did not allow for pooling results in a meta-analysis.

Studies	Format and content of education	Extend of education
Cousins et al. 2015 Journal of neurology	Brief guided self-help CBT in face-to-face sessions (links between thoughts and feelings, symptoms and behaviors, thought monitoring and relaxation techniques)	3x1hour face-to-face over 5 weeks
Hedborg et al. 2011 Upsala journal of medical sciences; and 2012 Cephalalgia	Program aiming at improvements in life-style and stress coping (stress physiology, physical activity, diet, thought pattern, attitude, handling of emotion)	Internet 53-page multimodal behavioural training program over 6 month
Holroyd et al. 2010 BMJ (Clinical research ed.)	Visits in the clinic and telephone contacts, dealing with the pathophysiology of migraine, behavioral management skills, relaxation (stretching, deep breathing, progressive muscle relaxation), homework assignments strategy for managing migraine triggers and effective acute drug use.	4x clinic visits, 3x phone contact during three month treatment
Kleiboer et al. 2014 Behaviour research and therapy	Online behavioural therapy aimed at migraine self-management (exercises to detect patterns of prodromal features, techniques for bodily self relaxation, cognitive-behavioural self regulation, techniques focus on a healthy life style)	8x1hour online sessions
Sorbi et al. 2015; Cephalalgia and 2017 Cephalalgia	Online behavioural Therapy (exercises to detect patterns of premonitory symptoms and triggers of the attack and techniques for physical relaxation and cognitive-behavioural self-regulation: priority setting, time management, reshaping of involuntary thoughts and behavioural habits). Additional techniques focus on body posture and a healthy lifestyle and on handling the pain during an attack.	8x voiceover sessions, 4 relaxation audios, 26 videos of exemplary patients, homework
Wells et al. 2014 Headache	Classes plus one retreat day and intensive training in mindfulness (mindful eating, mindful breathing, body scan and mindful movement). Additional information about stress and stress relief, the negative effects of stress reactivity and effective ways of responding positively and proactively in stressful situations.	8 weekly 2hour classes plus one retreat day of 6 hours plus guided audio recordings to practice at home for 45 minutes per day, 5 additional days per week.

Conclusions

The majority of studies with high methodological quality support the use of a behavioural treatment approach for the reduction of migraine frequency and improved quality of life. Future research should focus on the content, dosage and application form of behavioural approaches. Since psychologists are not always accessible for migraine patients, other health care providers involved in the management of migraine (e.g. physical therapists) should be taught to provide elements of effective behavioural interventions.

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