The effectiveness of psychological interventions for patients with relatively well-controlled epilepsy


Authors' objectives
To assess the effectiveness of psychological interventions in participants with relatively well-controlled epilepsy.

Searching
MEDLINE and PsycINFO were searched from inception to March 2002 for studies published in English in peer-reviewed journals, book chapters or editorials; the search terms were reported. Only English language publications were included in the review.

Study selection
No inclusion criteria were stated in relation to study design. The included studies were randomised controlled trials (RCTs), cross-sectional studies and longitudinal studies.

Specific interventions included in the review
Studies that assessed psychological interventions were eligible for inclusion. Studies that examined pharmacological, surgical, vagus nerve stimulation, or ketogenic diet interventions were excluded. The specific interventions included in the review were psychoeducation, relaxation, multi-component programmes, behavioural self-help programmes, individual counselling and cognitive rehabilitation.

Participants included in the review
Studies that included adult patients with reasonably well-controlled epilepsy were eligible for inclusion. This was defined as patients who experienced no more than one seizure per month while receiving a single anti-epileptic drug and who attended a regular job. Studies that included participants with mental retardation, pseudo-epileptic seizures or refractory epilepsy (defined as more than one seizure per week) were excluded.

Outcomes assessed in the review
Studies that included a psychological outcome measure were eligible for inclusion. The outcomes assessed were changes on a number of psychological trait and state rating scales.

How were decisions on the relevance of primary studies made?
The authors did not state how the papers were selected for the review, or how many reviewers performed the selection.

Assessment of study quality
The authors did not state that they assessed validity.

Data extraction
The authors did not state how the data were extracted for the review, or how many reviewers performed the data extraction. Data were extracted on the study design and sample size, patient demographics, seizure type and frequency, intervention and outcome measures.

Methods of synthesis
How were the studies combined?
The studies were grouped according to the type of intervention and a narrative synthesis was undertaken.
How were differences between studies investigated?
Differences between the studies were briefly discussed in relation to the study design, outcome measures assessed, and the participants' concomitant medication and prognosis.

Results of the review
Seven studies (495 participants) were included: four RCTs (n=318), one cross-sectional study (n=27) and two longitudinal studies (n=150).

Psychoeducation.
One RCT (n=38) that included participants with a seizure frequency of between 2 and 2.5 seizures per month assessed the effectiveness of a 2-day family or patient psychoeducational programme. The results at post-treatment and 4-month follow-up showed that the programme significantly reduced fear of seizures, as measured by the Sepulveda Epilepsy Education programme questionnaire, but not self-reports of anxiety, depression, or other psychosocial measures. No change in seizure frequency was observed.

Relaxation.
Self-invented relaxation techniques and muscle relaxation training were assessed in one cross-sectional study (n=27) and one RCT (n=16). The results of the cross-sectional study showed that the 7 participants who used self-invented relaxation techniques reported less pathology on hypochondrias, psychasthenia, paranoia, social introversion and schizophrenia dimensions, as assessed by the Minnesota Multiphasic Personality Inventory (MMPI), compared with 20 control participants. The RCT examined the effectiveness of muscle relaxation training, in particular the effect of stress on seizures. The results showed that no significant improvement on the Washington Psychosocial Seizure Inventory was found post-treatment or at 6-month follow-up for the intervention group compared with the controls. Seizure reductions were observed in 3 of the 4 patients who practised relaxation at least 15 days per month.

Behaviour therapy.
Behaviour therapy was assessed in one RCT (n=220) and one longitudinal study (n=67). The results of the RCT that assessed a comprehensive care programme (delivered on either an in- or out-patient basis), compared with a waiting-list control group, showed no significant differences between the groups in terms of two different measures of quality of life and seizure frequency at follow-up. The results of the longitudinal study that assessed behaviour therapy delivered in a self-help group showed mixed results. On one of the outcome measures (the MMPI), the results for men decreased linearly, whereas the mean scores for women increased at 2 months and then decreased after 4 months of participation. The results from the other two psychological measures employed were not reported.

Counselling.
One longitudinal study (n=83) examined the effect of individual counselling. No objective psychological outcome measures were assessed in the study, although the majority of the participants expressed satisfaction with the service and reported improvements in their problems at follow-up.

Cognitive rehabilitation.
One RCT (n=50) compared the effectiveness of either cognitive retraining or cognitive compensation methods with a waiting-list control group. Both of these methods showed improvement at follow-up compared with the control. The compensation method was more effective in improving self-reported neuropsychological outcomes and quality of life.

Authors' conclusions
One study examining cognitive rehabilitation reported positive outcomes, while one based on comprehensive care led to seizure reduction. However, all the other studies were plagued by too many methodological inadequacies to allow firm conclusions to be drawn.
CRD commentary
The review question was clearly defined in terms of the interventions, participants and outcome measures. Two databases were searched for relevant studies, but no efforts were made to address either language or publication bias. The authors did not state how the studies were assessed for inclusion or how the data were extracted. It is therefore not possible to know whether any steps were taken to minimise bias and errors. Likewise, it was unclear whether the quality of the primary studies was examined. Some study details were tabulated, enabling the reader to assess whether the results were consistent with the reviewed evidence base. The use of a narrative discussion to combine the studies was appropriate, and differences between the studies were briefly discussed. Overall, given the nature of the evidence base reviewed and the lack of clarity in the review methodology, the authors’ conclusion that no firm conclusions can be drawn is valid.

Implications of the review for practice and research
Practice: The authors did not state any implications for practice.

Research: The authors stated that larger RCTs are needed to assess the effectiveness of psychological interventions for patients with relatively well-controlled epilepsy.

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