

## Stress management programme may reduce hospital admissions among people with schizophrenia

Norman R, Malla A, McLean T *et al.* An evaluation of a stress management program for individuals with schizophrenia. *Schizophrenia Res* 2002 Dec;58:293–303.

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**QUESTION:** Does improving stress management skills enhance outcomes for people with schizophrenia?

### Design

Randomised trial. Assessors were blind to treatment allocation.

### Setting

One treatment centre in Canada; timeframe not specified.

### Participants

Participants were 121 people aged between 17 and 50 years with a DSM III-R diagnosis of schizophrenia. Mean age 34 years; 33% women; mean length of illness 9 years. People were excluded if they were hospitalised or had medication increases in the past 3 months due to exacerbation of acute symptoms.

### Intervention

Participants received either 1) a 12-week group stress management programme with individual follow up sessions, or 2) social activities. The stress management programme focused on muscular relaxation for reducing the physiological manifestations of stress, increasing physical stamina and improving cognitive and behavioural skills. Follow up occurred over 1 year.

### Main outcome measures

Symptoms were assessed using SAPS and SANS. The Life Skills Profile was used to assess functioning. Subjective stress was assessed using the Perceived Stress Scale. Information was collected about hospitalisations for psychiatric treatment during follow up.

### Main results

There were no differences between groups in symptom levels, perceived stress or life skills immediately following the intervention or at 1-year follow up. Those in the stress management programme had fewer hospital admissions in the year following treatment (12% *v* 23% controls, number needed to treat to benefit one person 9, relative risk reduction 48%, 95% CI 5% to 91%).

### Conclusions

This stress management programme did not reduce schizophrenia symptom levels or perceived stress, but was associated with fewer hospital admissions. The authors hypothesise that stress management training may provide people with schizophrenia with coping skills that reduce the likelihood of acute exacerbation of symptoms requiring hospitalisation.

### COMMENTARY

There are many psychological therapy approaches currently available, which can be used in addition to optimal medication for the treatment and rehabilitation of people with schizophrenia.<sup>1</sup> Recent meta-analyses have suggested the superiority of coping-oriented cognitive behaviour therapy methods compared with other psychological interventions.<sup>2</sup> These methods help to improve functional outcome. However, a statistical analysis of behaviour therapy in a German state psychiatric hospital suggested that less than one third of people with schizophrenia were treated with cognitive behavioural therapy.<sup>3</sup>

Norman *et al*'s programme integrates various important behaviour therapeutic techniques. The programme was tested empirically with an extensive sample of participants. This research and other studies in the field of rehabilitation in schizophrenia are valuable because well-elaborated studies only began to emerge in the late 1970s. Our knowledge about the complex interactional effects and mechanisms in planning and carrying out successful behavioural therapy continues to improve slowly.

One key problem in collecting more information about behaviour therapies and their mechanisms of action may be the types of design and outcome measures used. Norman *et al* chose a "classical evaluation procedure" of their programme. There are many difficulties with this approach. For instance, applying only inferential statistical procedures in studies of psychological interventions may be a pitfall.<sup>4</sup> Calculating effect sizes within or between groups and collecting data about the therapy course may provide more clinically relevant results. Besides methodological issues, the possible influence of neurocognition on functional outcome and psychopathology is receiving increasing attention.<sup>5</sup> It is surprising that Norman *et al* did not take these aspects into consideration because information processing might be an important factor for an optimal coping with stress.

Future research on psychological interventions in schizophrenia should focus mainly on questions of differential indication, such as: What type of cognitive behavioural technique and content best fits whom, when and where? What are the interactional effects with other therapies and rehabilitation procedures, especially medication? How could cost effectiveness be obtained with a minimum of input and a maximum of outcome? And what are significant outcome predictors (motivation, neurocognitive abilities such as learning potential and so on)?

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