



Title	A Randomized Controlled Multicentre Trial of Treatments for Adolescent Anorexia Nervosa Including Assessment of Cost-Effectiveness and Patient Acceptability – The Toucan Trial
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Aim

To evaluate the clinical and cost effectiveness of inpatient vs outpatient treatment and general (routine) treatment in Child and Adolescent Mental Health Services (CAMHS) against specialist treatment for young people with anorexia nervosa; and to determine young people's and their carers' satisfaction with these treatments.

Conclusions and results

Poor adherence to randomization limits the assessment of the treatment effect of inpatient care. This study provides little support for lengthy inpatient psychiatric treatment on clinical or economic grounds. The findings are consistent with guidelines on treating anorexia nervosa, which suggest that outpatient treatments should be offered to the majority, with inpatient treatment offered in rare cases. Our findings lend little support to a stepped-care approach that offers inpatient care to outpatient nonresponders. Outpatient care, supported by brief (medical) inpatient management to correct acute complications may be preferable. Health economic analysis and user views both support NICE guidelines, which suggest that anorexia nervosa should be managed in specialist services. Comprehensive general CAMHS might, however, be well placed to manage milder cases. Research should focus on the specific components of outpatient psychological therapies. Although family-based treatments are well established, trials have not established their effectiveness compared to good-quality individual psychological therapies. The combination of individual and family approaches is untested. Research needs to establish which patients (if any) might respond to inpatient psychiatric treatment when unresponsive to outpatient care, the positive and negative components of it, and the optimum length of stay. Of the 167 patients randomized, 65% adhered to the allocated treatment. Adherence was lower for inpatient treatment (49%) than for general CAMHS (71%) or specialist outpatient treatment (77%) ($p = 0.013$). Every subject was traced at 1 and 2 years, with the main outcome measure completed (through contact with the subject, family members, or

clinicians), by 94% at 1 year, 93% at 2 years, but only 47% at 5 years. A validated outcome category was assigned for 98% at 1 year, 96% at 2 years, and 60% at 5 years. All groups improved significantly at each time point, with the number achieving a good outcome being 19% at 1 year, 33% at 2 years, and 64% at 5 years. Analysis demonstrated no difference in treatment effectiveness of randomization to inpatient vs outpatient treatment, or specialist over generalist treatment at any time point when baseline characteristics were taken into account. Generalist CAMHS treatment was slightly more expensive over the first 2 years of the study, largely because greater numbers were subsequently admitted to hospital after the initial treatment phase.

Recommendations

See Executive Summary link at www.hta.ac.uk/project/1125.asp.

Methods

See Executive Summary link at www.hta.ac.uk/project/1125.asp.

Further research/reviews required

Physical and psychological risk, parental anxiety, and social and educational withdrawal often result in inpatient admission. The opportunities for intensive psychological therapies, general support, refeeding, and respite from external stresses make specialist inpatient care a logical step. Satisfaction (particularly among parents) is good.