Systematic review and economic modelling of the clinical effectiveness and cost-effectiveness of art therapy among people with non-psychotic mental health disorders

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Scientific summary

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Background

Mental health problems account for almost half of all ill health in people under 65 years. The majority of these mental health problems are non-psychotic. These include anxiety disorders such as phobias and obsessive–compulsive disorder, mood disorders such as depression and major depressive disorder, and other problems such as eating disorders and personality disorders. Despite the high prevalence of these disorders in mental ill health, only one-quarter of people with mental health problems are in treatment.

Currently the National Institute for Health and Care Excellence (NICE) recommends cognitive–behavioural therapy (CBT) for most non-psychotic mental disorders and recommends arts therapies only for schizophrenia. However, for some people, art therapies may provide an approach to psychological therapy with which they find it easier to engage. For example, for those who find it difficult to express themselves in verbal language alone, as required by more standard forms of treatment for mental health problems, such as talking therapies, arts therapies can provide an alternative means of expression to help service users understand, make sense of and cope with their distress. There is a small body of evidence to support the claim that art therapy is effective in treating a variety of symptoms and disorders in patients of different ages. However, to date a full systematic review of the clinical effectiveness and cost-effectiveness of art therapy for non-psychotic mental disorders has not been undertaken. This project aimed to systematically review the current evidence for art therapy for people with non-psychotic mental disorders.

Research questions

1. What is the evidence that art therapy is clinically effective in people with non-psychotic mental health disorders?
2. What are the user and service provider perspectives on the acceptability and relative benefits and potential harms of art therapy for people with non-psychotic mental disorders?
3. What is the evidence that art therapy is cost-effective in people with non-psychotic mental health disorders?

Search methods

A systematic literature search was developed for studies examining art therapy in populations with non-psychotic mental health disorders. Comprehensive searches were conducted in major health-related and social science bibliographic databases including MEDLINE, EMBASE, The Cochrane Library, Cumulative Index to Nursing and Allied Health Literature (CINAHL), PsycINFO, Allied and Complementary Medicine Database (AMED) and Applied Social Sciences Index and Abstracts (ASSIA) from inception up to May 2013. Search terms relating to art therapy were combined with methodological search filters to identify reviews, randomised controlled trials (RCTs), economic evaluations, qualitative research and any other study types. No date or language restrictions were applied. Additional searches were conducted via a number of websites and electronic resources to identify grey literature. Hand-searching of key art therapy journals was also conducted. A quantitative systematic review of the clinical effectiveness of art therapy was undertaken, as well as a qualitative review to explore the acceptability, relative benefits and potential harms of art therapy. In addition, a cost–utility analysis of studies evaluating cost-effectiveness of art therapy was conducted.

Inclusion criteria

Population: non-psychotic clinical samples.

Intervention: art therapy as might be delivered in the NHS.

Comparators: any including treatment as usual, wait-list, attention placebo or other psychological therapy.

Outcomes: treatment effectiveness as determined by changes in mental health rating scales; related clinical or quality of life outcomes; qualitative data on the acceptability, relative benefits and potential harms of art therapy; economic data on the costs or cost-effectiveness of art therapy.

Studies: quantitative review – RCTs. Qualitative review – case series, interviews and observational studies. Studies in all settings were included, although community was the main setting of interest.

Exclusion criteria

Population: people with psychosis; healthy samples.

Intervention: other 'arts therapies', including drama, music and dance. Play therapy.

Comparators: none.

Outcomes: outcomes focused on interpretation of the art work itself, not the participant.

Studies: quantitative review – any evidence from non-randomised controlled studies. Qualitative review – single case studies.

Data collection and analysis

For the quantitative and qualitative reviews, two review authors sifted titles and abstracts for identification of relevant studies, assessed trial quality and extracted data independently for all studies. In the event of a disagreement, a third reviewer was consulted. Studies were included regardless of study quality.

Results of the quantitative review

Of the 10,270 records retrieved, 15 RCTs were included in the review ($n = 777$). Study populations included adults and children with depression, cancer, HIV/AIDS, sickle cell disease, post-traumatic stress disorder, dementia and asthma. Owing to the scarcity of data in each condition as well as heterogeneity of clinical profiles and outcomes measures, meta-analysis was not possible. A narrative synthesis reports that art therapy was associated with significant positive changes in mental health symptoms relative to the control group in 10 out of the 15 studies examined. Relevant mental health symptoms targeted in the studies included depression, anxiety, mood, trauma, distress, quality of life, coping, cognition and self-esteem. Comparators were treatment as usual, CBT, psychodynamic psychotherapy, regular programme activities, simple calculations, art and craft activities, guided garden walking, educational support and viewing a video tape. Four studies reported improvement from baseline but no significant difference between groups. One study reported that outcomes were more favourable in the control group.

The quality of the included RCTs was generally low. The risk assessment of bias highlighted that, although all studies were reported to be RCTs, few studies reported how patients were randomised and in the majority of studies there were several instances of high risk of bias. Areas of potential confounding frequently associated with the studies included attrition, concomitant treatment and treatment fidelity and subsequently the internal validity of the included studies is threatened. Owing to the low quality of the 15 RCTs, the results included in the quantitative review should be interpreted with caution.

Results of the qualitative review

In total, 12 cohort studies of art therapy were included in the qualitative review, providing data from 188 service users and 16 service providers. Major themes relating to the benefits of art therapy for service users included the importance of the relationship with the therapist, increased understanding of self, distraction from own illness, personal achievement, self-expression, relaxation, empowerment and expression of feelings. Potential harms related to the activation of emotions that were then unresolved, lack of skill of the art therapist and sudden termination of art therapy. Service providers reported benefits such as the promotion of communication, anger management and expression of emotions and highlighted the importance of art therapists and other health professionals working together; if they did not, this was a barrier to service users' participation in art therapy.

The quality of included qualitative studies was generally low to moderate. Each finding could potentially be graded as being of high, moderate or low certainty. For the evidence from patients, there were a total of 38 findings: 20 were assessed as being of moderate certainty and 18 were assessed to be of low certainty. For the evidence from service providers, as only two studies contributed to the evidence, there were a total of 25 findings: 19 were assessed as being of moderate certainty and six were assessed to be of low certainty. No findings were assessed as being of high certainty.

Results of the cost-effectiveness review

The systematic review of cost-effectiveness data for art therapy identified one relevant case study. For this reason, a de novo model was constructed and populated with data from three RCTs identified in the clinical review from which preference-based utility data could be estimated. Given heterogeneous interventions, scenario analyses were conducted. These allowed comparisons of group art therapy with wait-list control; group art therapy with group verbal therapy; and individual art therapy versus control. None of the art therapy interventions was similar to that employed in England and Wales and thus generalisations could not be made with any confidence. However, based on the interventions within the RCTs group and assuming a willingness to pay £20,000 per quality-adjusted life-year gained, art therapy appeared more cost-effective than wait-list control with high certainty; verbal therapy appeared more cost-effective than art therapy but there was considerable uncertainty and a sizeable probability (20%) that art therapy was more clinically effective. The cost-effectiveness of individual art therapy was uncertain and dependent on assumptions made regarding clinical benefit and duration of benefit. An exploratory analysis was undertaken to estimate the utility gain required for art therapy as used in England and Wales to be cost-effective. This threshold level was below the gain seen in the RCT of art therapy against wait-list control, despite the short duration of art therapy in this study.

Conclusions

From the limited available evidence the following conclusions can be made from this review.

- Art therapy appears to have statistically significant positive effects compared with control in a number of studies in patients with different clinical profiles.
- Art therapy was reported to be an acceptable treatment and was associated with a number of benefits. A small numbers of patients reported varying reasons for not wanting to take part and, therefore, art therapy may not be a preferred treatment option for everyone.
- Art therapy appears to be cost-effective versus wait-list, but confirmatory studies are needed to confirm this finding, as well as evidence to inform future cost-effective analyses of art therapy versus other treatments.

Recommendations

Recommendations for future research are suggested which include more multiarm controlled trials, pre-specified populations, random selection and allocation of participants, allocation concealment, use of user-validated outcomes and ensuring appropriate long-term follow-up of treatment response.

Study registration

The study is registered as PROSPERO CRD42013003957.

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