

# Living FRIendly Summaries of the Body of Evidence using Epistemonikos (FRISBEE)

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## Art therapy for schizophrenia?

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#### **Abstract**

Art therapy is used as a complementary treatment to antipsychotics in schizophrenia. However, its effectiveness is not clear. To answer this question, we searched in Epistemonikos database, which is maintained by screening multiple databases. We identified five systematic reviews including 20 studies overall, of which four were randomized trials. We extracted data and prepared summary of findings tables using the GRADE method. We concluded it is not clear whether art therapy leads to clinical improvement in schizophrenia because the certainty of the evidence is very low.

## **Problem**

Many patients with schizophrenia remain symptomatic despite pharmacotherapy. For this reason, other types of interventions are recommended, such as those focused on art or art therapy. The British Association of Art Therapists defines this treatment as "a form of psychotherapy that uses art media as its primary mode of expression and communication" [1], in which art is used as a medium to address emotional issues that cause distress.

It is thought this intervention would allow patients with schizophrenia to process emotional, cognitive and psychotic experiences through art. However, it is not clear whether it leads to a clinical improvement.

#### **Methods**

We used Epistemonikos database, which is maintained by screening multiple databases, to identify systematic reviews and their included primary studies. With this information, we generated a structured summary using a pre-established format, which includes key messages, a summary of the body of evidence (presented as an evidence matrix in Epistemonikos), meta-analysis of the total of studies, a summary of findings table following the GRADE approach and a table of other considerations for decision-making.

#### Kev messages

• It is not clear whether art therapy leads to clinical improvement in schizophrenia or if it is a cost/effective therapy because the certainty of the evidence is very low.



## About the body of evidence for this question

What is the evidence. See evidence matrix in Epistemonikos later	We found five systematic reviews [2],[3],[4],[5],[6] that include 20 primary studies that answered the question of this summary (reported in 24 references) [7],[8],[9],[10],[11],[12],[13],[14],[15],[16],[17],[18],[19], [20],[21],[22],[23],[24],[25],[26],[27],[28],[29],[30], of which four are randomized controlled trials, reported in eight references [8],[12],[13],[14], [16],[17],[19],[28].  This table and the summary in general are based on the latter.	
	Although the definition of art therapy can include interventions based on music, dance or other performing arts, we selected the definition used by most systematic reviews, that is, therapy centered in visual or plastic arts.	
What types of patients were included	All of the trials included patients with schizophrenia. One trial included a group of patients with schizophrenia, depression, bipolar disorder and personality disorder [28].	
	Three trials intervened in an outpatient setting [8],[13],[28] and one with patients in closed hospitalization [12].	
What types of interventions were included	The intervention in three trials was designed according to the recommendations of the British Association of Art Therapists [8],[13],[28]. One trial [12] used psychodynamic art therapy; in spite of not explicitly adhering to the definition of the British Association, the description provided suggests it follows its recommendations.	
	All interventions were provided in a group format.	
	The frequency of sessions was variable. One trial delivered the intervention twice weekly [12], two trials weekly[8],[13] and one trial every other week [28].	
	The length of the intervention varied between six weeks and one year. All of the trials compared against standard treatment. One trial [13] also compared against a different group activity.	
What types of outcomeswere measured	The trials measured multiple outcomes; however, the different systematic reviews grouped them as follows: effectiveness (Scale for the Assessment of Negative Symptoms [SANS], Brief Psychiatric Rating Scale [BPRS], Brief Symptom Inventory [BSI], scales of social functioning and quality of life) and acceptability.	

## **Summary of findings**

The information about the effects of art therapy in schizophrenia is based on four randomized trials including 612 patients. Three trials reported effectiveness [8],[12],[13] and all trials included at least one measure of acceptability. The summary of findings is the following.

- It is not clear whether art therapy leads to clinical improvement in schizophrenia because the certainty of the evidence is very low.
- It is not clear whether art therapy is an intervention acceptable for patients because the certainty of the evidence is very low.



Patients Intervention Comparison	Patients with schizophrenia Art therapy Standard treatment		
Outcomes	Effects	Certainty of the evidence (GRADE)	
Effectiveness	Two trials evaluated effectiveness by measuring psychotic symptoms and global functioning [12], [13]. One showed no difference at 12 or 24 months [12], another led to improvement in positive symptoms [13]. A third trial [8] showed improvement in a scale of negative symptoms (SANS), without differences in quality of life or social functioning.	⊕○○○¹,2,3 Very low	
Acceptability	One trial [13] reported 39% did not show up to art therapy sessions because they were not motivated or found it difficult to attend. In another trial [28], 40% abandoned before completing treatment, however, this was less than in the standard treatment group. In another trial [8], there were no differences in dropout between both groups, and in another [12], 59% attended to art therapy sessions compared to 69% in the control arm.	⊕○○¹,2,3 Very low	

GRADE: evidence grades of the GRADE Working Group (see later in this article).

## About the certainty of the evidence (GRADE)\*

#### $\oplus \oplus \oplus \oplus$

**High:** This research provides a very good indication of the likely effect. The likelihood that the effect will be substantially different† is low.

#### $\oplus \oplus \oplus C$

Moderate: This research provides a good indication of the likely effect. The likelihood that the effect will be substantially different† is moderate

#### $\oplus \oplus \bigcirc \bigcirc$

**Low:** This research provides some indication of the likely effect. However, the likelihood that it will be substantially different† is high.

#### (H)()()

Very low: This research does not provide a reliable indication of the likely effect. The likelihood that the effect will be substantially different is very high.

\*This concept is also called 'quality of the evidence' or 'confidence in effect estimates'.

<sup>&</sup>lt;sup>1</sup> The certainty of the evidence was downgraded for risk of bias since all the trials had serious limitations; allocation concealment was not described and they had limitations in keeping evaluators blinded. Additionally, due to practical reasons, neither patients nor therapists could be blinded to the intervention, which inevitably incorporates risk of bias.

<sup>&</sup>lt;sup>2</sup> The certainty of the evidence was downgraded for inconsistency in the results of the trials.

<sup>&</sup>lt;sup>3</sup> The certainty of the evidence was downgraded for indirectness, since the intervention considered as art therapy was variable among studies.

<sup>†</sup> Substantially different = a large enough difference that it might affect a decision.



## Other considerations for decision-making

#### To whom this evidence does and does not apply

- The evidence presented in this summary is applicable to in- or outpatients with schizophrenia.
- It does not apply to patients using other types of artistic interventions, such as music, dance or theater.

## About the outcomes included in this summary

The summary of findings table includes outcomes critical for decision-making according to the
opinion of the authors of this summary. They were broadly defined in the systematic reviews
identified, but they incorporate relevant outcomes for patients, such as global functioning and
changes in symptoms. These outcomes coincide with those presented in reviews and the
main clinical guidelines.

#### Balance between benefits and risks, and certainty of the evidence

 It is not possible to make and adequate risk/benefit balance because the certainty of evidence about the effectiveness of art therapy for schizophrenia is very low.

## What would patients and their doctors think about this intervention

- Considering the existing evidence, most patients and caregivers should lean against the intervention, because of uncertainty and resource considerations.
- In a qualitative analysis of one of the randomized trials [10], patients who did not attend to art therapy sessions reported low motivation for the treatment. Among the patients who did attend, most noticed positive effects, an increase in their self-esteem and in their ability to understand others. These could happen in practice, where motivation does not neccesarily depend on the effect on the disease, but is also influenced by other elements, such as patient preferences and difficulties in access.

#### **Resource considerations**

 It is not possible to make and adequate cost/benefit balance because the certainty of the evidence about the effectiveness of art therapy for schizophrenia is very low.

#### Differences between this summary and other sources

- The conclusions of the reviews identified differ slightly between them. Some reviews pose art therapy as a promising intervention for a broad set of diseases, including schizophrenia [2],[4], while other reviews suggest the evidence is not conclusive, in agreement with the conclusion of this summary [3],[5].
- The National Institute for Health and Care Excellence guidelines [31] suggest incorporating art therapy in the treatment of patients with schizophrenia, especially in those with marked negative symptoms. However, this guideline did not include the analysis of two radomized trials analysed in this summary [12],[13].

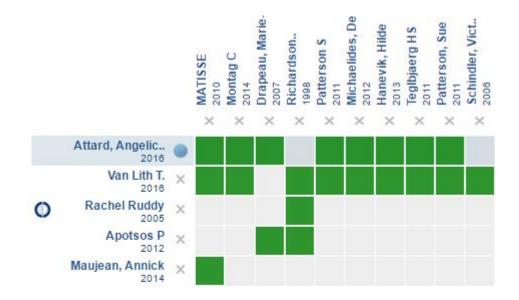
#### Could this evidence change in the future?

- The likelihood that future evidence changes the conclusions of this summary is high because of the existing uncertainty.
- We identified at least one ongoing trial [32] addressing this topic that could provide relevant information in the future.
- Most of the systematic reviews included in this summary have significant limitations, either in their methods or in their update level. New high quality systematic reviews could provide useful information about this topic.



#### How we conducted this summary

Using automated and collaborative means, we compiled all the relevant evidence for the question of interest and we present it as a matrix of evidence.



Starting from any systematic review, Epistemonikos builds a matrix based on existing connections in the database.

The author of the matrix can select relevant information for a specific health question (typically in PICO format) in order to display the information set for the question.

The rows represent systematic reviews that share at least one primary study, and columns display the studies.

The boxes in green correspond to studies included in the respective reviews.

Follow the link to access the **interactive version:** Art therapy for schizophrenia and schizophrenia-like disease

#### **Notes**

The upper portion of the matrix of evidence will display a warning of "new evidence" if new systematic reviews are published after the publication of this summary. Even though the project considers the periodical update of these summaries, users are invited to comment in *Medwave* or to contact the authors through email if they find new evidence and the summary should be updated earlier. After creating an account in Epistemonikos, users will be able to save the matrixes and to receive automated notifications any time new evidence potentially relevant for the question appears.

The details about the methods used to produce these summaries are described here http://dx.doi.org/10.5867/medwave.2014.06.5997.

Epistemonikos foundation is a non-for-profit organization aiming to bring information closer to health decision-makers with technology. Its main development is Epistemonikos database (<a href="www.epistemonikos.org">www.epistemonikos.org</a>).

These summaries follow a rigorous process of internal peer review.

## **Conflicts of interest**

The authors do not have relevant interests to declare.



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