

# Study Protocol

Linguistic Creativity in Schizophrenia: A Systematic Review

09/11/2018, v.1.1

## **Study Management Group**

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# **Table of Contents**

ADMINISTRATIVE INFORMATION	3
Title	3
Information	3
Update	3
Registration	3
Authors	3
Contact	3
Contributions	3
Amendments	3
Support	4
Sources	4
INTRODUCTION	4
Rationale	4
Objectives	4
METHODS	4
Eligibility criteria	4
Inclusion criteria	4
Exclusion criteria	4
Information sources	5
EBSCO	5
Search strategy	5
EBSCO	5
STUDY RECORDS AND DATA	5
Data management	5
Selection process	6
Data collection process	6
Data items	6
Outcomes and prioritisation	6
Main	6
Risk of bias in individual studies	6
Synthesis	6
DEFEDENCEC	7



#### ADMINISTRATIVE INFORMATION

#### Title

Information

Linguistic Creativity in Schizophrenia: a Systematic Review

Update

This protocol is not for an update of a previous systematic literature review.

#### Registration

When finalised, in accordance with the PRISMA-P guidance, this protocol will be registered with PROSPERO.

#### **Authors**

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Contributions

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#### **Amendments**

If/when applicable, a record of amendments will appear here.

Version	Date	Details
1.0	07/03/2018	
1.1	09/11/2018	reference to a conditional corpus linguistic analysis



## Support

#### Sources

No financial support has been awarded to this project. Manchester Metropolitan University provides operational and academic guidance; Devon Partnership NHS Trust provides operational and field supervision.

#### **INTRODUCTION**

#### Rationale

It is accepted that the clinical composition of schizophrenia is one that entails linguistic elements (McKenna, 2005). Previous systematic reviews of schizophrenia's linguistic features have attended to neuroimagery (Cavelti et al. 2018) and semantic deficits (Tonelli, 2014) in the contexts of Formal Thought Disorder (FTD hereafter); FTD has, historically, found theoretical kinship with linguistic creativity (Andreasen, 1974); linguistic creativity in schizophrenia, on which sufficient literature to merit a review exists, has yet to receive systematic treatement—a recent metaanalysis notwithstanding (Acar et al. 2017). Such a review is justified by the number of individual studies whose findings do not, alone, elucidate the (ir)relevance of linguistic creativity to schizophrenia in adequate terms (Acar et al. 2017). This review will synthesise the evidence—as it refers to creativity measures in schizophrenia cohorts—to appraise the data available, review the extant theoretical topography, and suggest future investigative directions.

#### **Objectives**

This review explores linguistic creativity in schizophrenia with a view to arriving at a consensus, context-specific definition of the term.

#### **METHODS**

A population(s), intervention(s), control(s), outcome(s), and study design(s) (PICOS) framework has been applied to the development of the review's research objectives and eligibility critieria. A narrative meta-synthesis (Popay et al. 2006) approach will be applied to the literature retrieved; in addition, the post-hoc application of corpus linguistic techniques will be investigated and actioned if feasibility is determined at the point of data extraction and analysis.

## Eligibility criteria

Date of publication will not be treated as a criterion for inclusion/exclusion.

## Inclusion criteria

Peer reviewed reports of empirical studies that have: involved participants with a formal diagnosis of schizophrenia; investigated the production and/or comprehension of figuration, irony, and/or proverb directly; utilised a quantitative, qualitative, or mixed methodology to generate primary data; seen publication in the English language (i.e. either by origin or translation); a publication status of either (1) approved for publication or (2) published.

## Exclusion criteria

Reviews, non-research articles, and/or studies reported in theses, books, and/or 'grey' literature sources; and/or studies that have: involved participants with a formal diagnosis and/or comorbidity of any psychiatric condition other than schizophrenia; made reference to the production and/or comprehension of figuration, irony, and/or proverb consequent to an



unrelated main research aim; assigned multiple psychiatric cohorts to a single sample; employed a methodology that examined secondary data only.

#### Information sources

The following electronic sources will be utilised: online-access journals, publication databases, trial registers, and the reference lists of studies selected for inclusion; supplementary searches will involve the following manual sources: print journals and the reference lists of studies selected for inclusion. Dates of coverage, across sources, will span the period 7 March–10 April, 2018.

#### **EBSCO**

The following databases will be searched: The Allied and Complementary Medicine Database (AMED), Child Development & Adolescent Studies, Cumulative Index of Nursing and Allied Health Literature (CINAHL), Medical Literature Analysis and Retrieval System Online (MEDLINE), PsycARTICLES, and PsycINFO.

## Search strategy

#### **EBSCO**

A Boolean/phrase search will be applied, using the following terms:

'TI schizophrenia AND TI creativity' (n = 30);

'TI psychosis AND TI creativity' (n = 17);

'TI psychosis AND creative' (n = 7);

'TI schizophrenia AND TI creative' (n = 15);

'TI schizophrenia AND TI figurative' (n = 3);

'TI schizophrenia AND TI metaphor' (n = 26);

"TI schizophrenia AND TI language AND TI figurative" (n = 2);

"TI schizophrenia AND TI language AND TI metaphor" (n = 1);

'TI psychosis AND TI language' (n = 71);

"TI psychosis AND TI linguistic" (n = 11);

'TI schizophrenia AND TI language' (n = 378);

'TI schizophrenia AND TI linguistic' (n = 53);

"TI schizophrenia AND TI language AND TI thought" (n = 39);

'TI schizophrenia AND TI speech AND TI language' (n = 10);

'TI schizophrenia AND TI speech' (n = 191).

Where electronic records are not available directly, copies will be requested from the author(s).

Manual searches will include academic and/or public library stock.

## STUDY RECORDS AND DATA

#### Data management

Endnote (X8.2) software will be used to generate an electronic record of the literature retrieved, which will be imported into the Cochrane Foundation's Covidence platform for screening; hard



copies of individual papers will be produced for the purposes of synthesis and quality appraisal; and a PRIMSA-compliant record of the screening procedure will accompany the review.

## Selection process

Studies will be selected in accordance with the search procedures and inclusion/exclusion screenings outlined above.

## Data collection process

Search results will be extracted electronically, via EBSCOhost; duplicates will be filtered for removal, using Endnote (X8.2); the resulting output will be imported into the Cochrane Foundation's Covidence platform for screening (i.e. abstract and full text) and extraction.

#### Data items

Data will be sought on the basis of relevance: to the topic and the population(s) of interest. Both key characterics and prominent themes tables will appear in the final report.

## Outcomes and prioritisation

#### Main

Data will be sought for the primary purposes of theory building and elucidating further lines of inquiry. A record of outcomes will be generated and included in the final report.

#### Risk of bias in individual studies

The Quality Assessment Tool for Studies with Diverse Designs (QATSDD; Sirriyeh et al. 2012) will be employed to rate the quality of individual papers and assess risk of bias(es): actioned by the corresponding author and two independent scrutineers blind to the selection processes. Any instances of inter-reviewer disagreement will be resolved via discussion, under academic supervision. An illustrative table denoting the scoring procedures and detailing the nature and outcomes of any disagreements will appear in the final report.

## **Synthesis**

Given its methodological scope, a quantitative synthesis is not suitable for this review; accordingly, a structured, narrative meta-synthesis (Popay et al. 2006) will be applied.



## **REFERENCES**

Acar, S., Chen, X. and Cayirdag, N., 2017. Schizophrenia and creativity: A meta-analytic review. *Schizophrenia research*.

Andreasen, N.J.C., Tsuang, M.T. and Canter, A., 1974. The significance of thought disorder in diagnostic evaluations. *Comprehensive Psychiatry*, 15(1), pp.27-34.

Cavelti, M., Kircher, T., Nagels, A., Strik, W. and Homan, P., 2018. Is formal thought disorder in schizophrenia related to structural and functional aberrations in the language network? A systematic review of neuroimaging findings. *Schizophrenia Research*.

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Tonelli, H.A., 2014. How semantic deficits in schizotypy help understand language and thought disorders in schizophrenia: a systematic and integrative review. *Trends in psychiatry and psychotherapy*, 36(2), pp.75-88.