A pre-registration: Cognitive mechanisms associated with auditory hallucinations in clinical populations

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Background

Auditory hallucinations (AHs) occur across a range of clinical diagnoses; typically within the context of the schizophrenia spectrum (SCZ-Sp.). Numerous cognitive mechanisms have been proposed to underlie AHs, yet inconsistent evidence supports their identified relationships with the presence and/or intensity of these experiences. While several theoretical models have been proposed – postulating AHs as misattributed internal dialogue, intrusive memories, attention hypervigilance, among other phenomena – it is unclear how these isolated models may be integrated to account for the full range of AH presentations.

The proposed study stands as a clinical replication of the investigation of cognitive mechanisms associated with hallucination proneness in the general population, conducted by Moseley et al. (2020).

Aims

To investigate performance across key cognitive variables of interest, in relation to auditory hallucinations.

Participants

1) Current SCZ-Sp. Diagnosis: Current AHs
2) Current SCZ-Sp. Diagnosis: Lifetime AHs
3) Current SCZ-Sp. Diagnosis: Never AHs
4) No Clinical Diagnosis: Never AHs

N = 154

Variables

Source memory task
- *Reality monitory bias*

Dichotic listening task
- *Right-ear advantage*
- *Inhibitory cognitive control*

Letter Number Span (MCCB)
- *Verbal working memory*

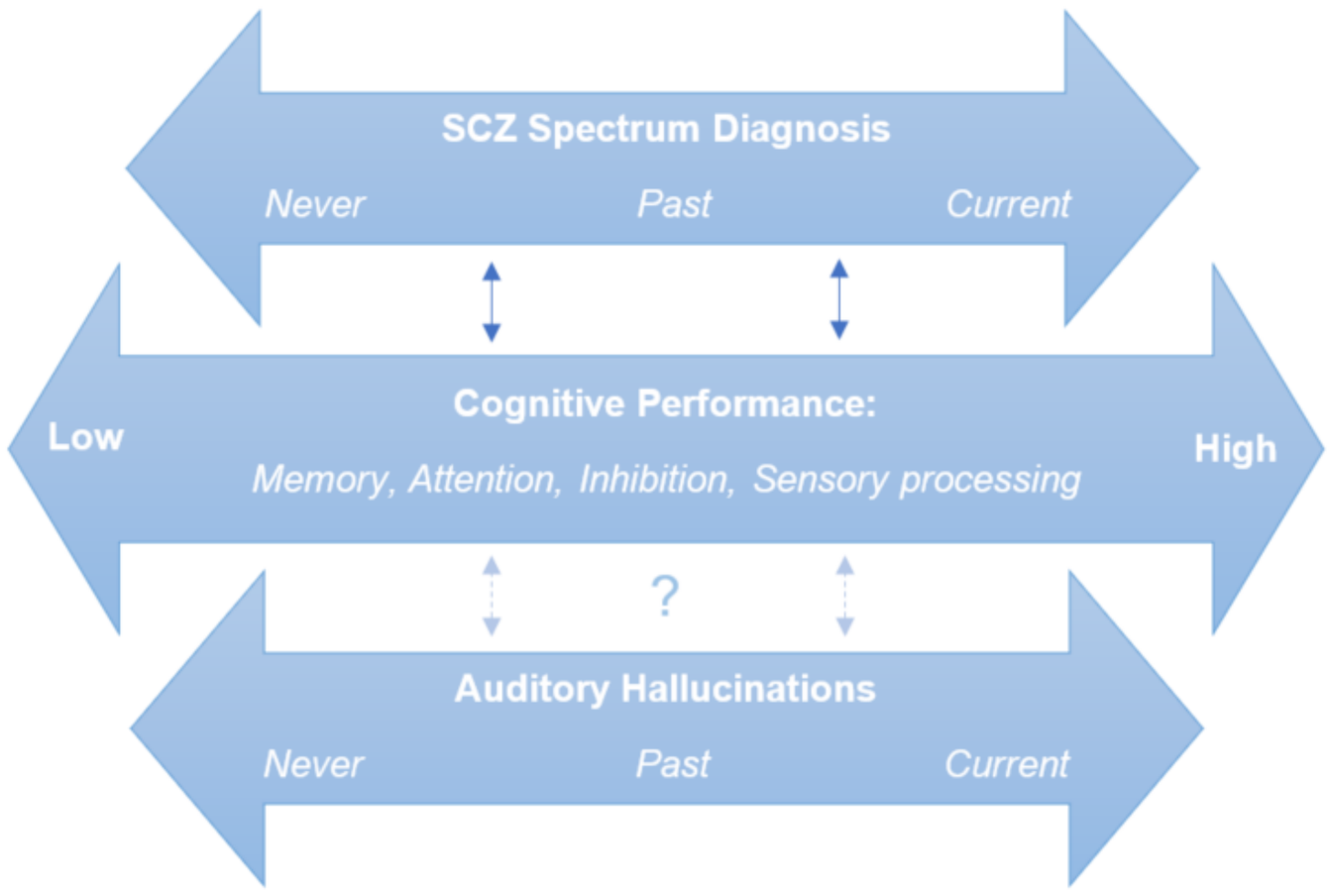
Auditory signal detection task
- *Signal detection sensitivity*

Emotion prosody task
- *Emotion labelling accuracy*

Tone discrimination task
- *Tone discrimination sensitivity*

Auditory go no-go task
- *Response inhibition*

Multimodal Hallucinations Schedule
- *Auditory Hallucination severity*



Design

- Cross-sectional
- Causal-comparative

Planned Analyses

- 4 group one-way ANOVA with post-hoc comparisons
- Diagnostic comparison = 1/2/3 vs. 4
- AH comparison = 1 vs. 2 vs. 3

Hypotheses

General performance =
- No Diagnosis > Current SCZ-Sp. Diagnosis

Task-dependent performance =
- SCZ-Sp. Never AHs / Lifetime AHs > Current AH, *OR*
- SCZ-Sp. Never AHs > Lifetime AHs / Current AHs

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