Differing positive symptom profiles in psychosis: Comparing primary voice-hearers versus those with hallucinations across multiple sensory modalities

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Background

A handful of recent studies has suggested that multisensory experiences may be more prevalent than isolated auditory hallucinations, though the latter has appropriated the bulk of research attention to date. From a patient's perspective, it has been posited that hallucinatory experiences across more than one sensory domain may be associated with increased conviction regarding perceived veracity, thereby inciting heightened emotional distress, though this remains to be empirically corroborated.

Aims

Our current study aimed to: i) inclusively examine the characteristics of auditory hallucinations in psychosis patients with voices only (AVH) versus those with voices plus hallucinations in at least one other sensory modality (AVH+), and ii) explore levels of endorsement and the related impact of comorbid delusions.

Method

A transdiagnostic group of psychiatric participants with primary voice-hearing experiences was recruited, and partitioned into two groups based on patterns of responses on the Scale for the Assessment of Positive Symptoms (SAPS) Hallucinations subscale Items 1 (auditory), 4 (somatic-tactile), 5 (olfactory), and 6 (visual); those endorsing ≥2 (mild or above) for Item 1 only (or combined with <2 for Items 4-6) were assigned to the AVH group (*n*=50), whereas those endorsing ≥2 for Item 1 plus at least one other from Items 4-6 were assigned to the AVH+ group (*n*=50). A current timeframe (i.e. past 14 days) was designated. The Questionnaire for Psychotic Experiences (QPE) was administered to assess psychosis phenomenology.

Results

Demographic

- Groups were well-matched on age, sex, and IQ

Clinical

- Groups were well-matched on illness duration, anxiety and mania severity, and medication status
- Depression severity: AVH<AVH+ (*p*=.012)
- Psychosis severity: AVH<AVH+ (*p*=.019)

Psychosis phenomenology (see Figures 1 and 2)

- Compliance: AVH<AVH+ (*p*=.006)
- Auditory illusions: AVH<AVH+ (*p*=.001)
- Sensed presences: AVH<AVH+ (*p*<.001; not shown)
- Delusional themes: AVH<AVH+
  - Reference (*p*=.003); Misidentification (*p*=.005)
- Delusion severity: AVH<AVH+
  - Distress (*p*=.001); Functional impact (*p*=.008)

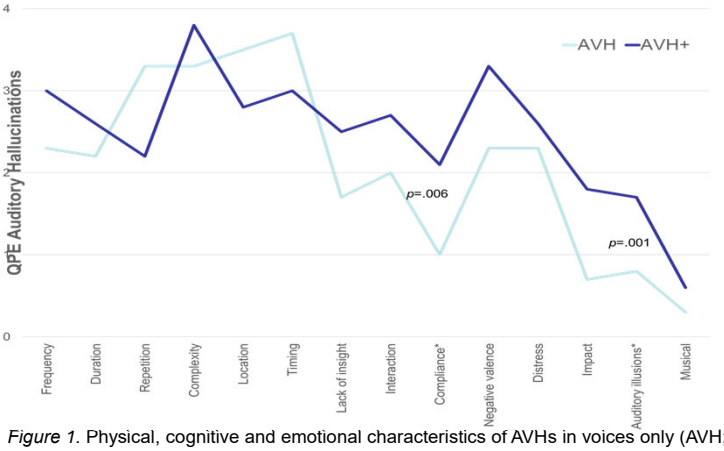

Figure 1. Physical, cognitive and emotional characteristics of AVHs in voices only (AVH; *n*=50) versus voices plus (AVH+; *n*=50) hallucinations groups. QPE=Questionnaire for Psychotic Experiences; Auditory Hallucinations rated on Likert scales, ranging from 0=*None* to 5=*Severe*.
* Alpha for significance *p*<.01; *p values listed only for significant group differences.*

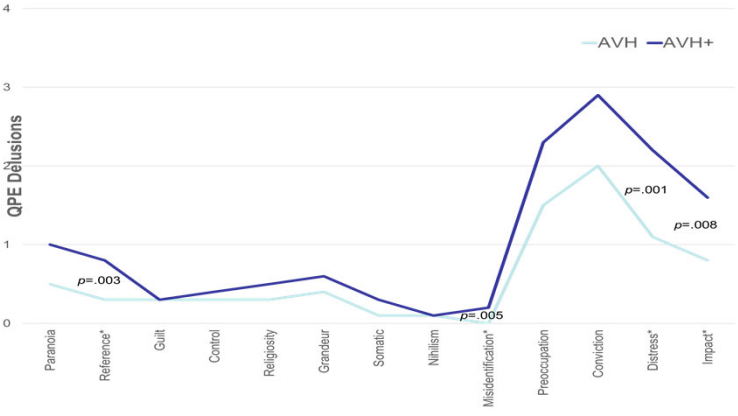

Figure 2. Comorbid delusions in AVH (*n*=50) versus AVH+ (*n*=50) hallucinations groups. QPE=Questionnaire for Psychotic Experiences; Delusions rated on Likert scales, ranging from 0=*None* to 5=*Severe*.
* *Alpha for significance p*<.01; *p* values listed only for significant group differences.

Discussion

Our study uncovered important phenomenological differences in those with multisensory hallucinations. Future research extending beyond the auditory modality is needed, for instance, contrasting multisensory hallucinations (not necessarily in primary voice-hearers) against unimodal hallucinations in different sensory domains. We should also explore whether these effects intensify with the number of sensory modalities involved.

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