Background

Auditory Verbal Hallucinations (AVH) are common in youth. A Dutch general population study among 3870 children aged 7-8 years old showed a 9% prevalence rate of AVH [1]. Although AVH are transient in the majority of children, a subgroup experiences substantial suffering and problem behavior [1]. Persistence of AVH is associated with lower secondary school level [2]. Furthermore, the presence of AVH is associated with severe psychopathology, such as disruptive behavior, attention deficit disorders, emotional disorders, personality traits and substance use disorders [3] and the development of psychotic disorders later in life [4]. For this subgroup, early detection and intervention is warranted, while for the majority of children with AVH medical involvement seems unnecessary. Unfortunately, at this time, we cannot accurately differentiate between those at risk and those with transient symptoms. The UMC Utrecht Brain Center Rudolf Magnus opened an Outpatient Voices Clinic for Youth. The Voices Clinic offers thorough diagnostic assessment and if indicated treatment. Also, a longitudinal observational study started to reveal biological, psychological and social factors that predict outcome of youth with AVH.

Purpose of the study

The results of this study will enable to predict in which subgroup of youngsters AVH are relatively harmless and will disappear over time and which subgroup is at high risk for persistence of AVH and the development of severe psychopathology and should receive treatment.

Methods

The study population consists of 170 children and adolescents with AVH and 170 siblings without AVH, aged 8-18 years and their parents. Assessments include questionnaires, structured clinical interviewing, physical examination and neuropsychological tests. All participants will receive re-assessments with a follow up duration of 5 years.

Results

<table>
<thead>
<tr>
<th>Youth characteristics</th>
<th>N</th>
<th>Age (y), mean (range - SD)</th>
<th>Gender, N girls (%)</th>
<th>GAF, mean (SD)</th>
<th>No. DSM diagnosis, N (%)</th>
<th>No DSM diagnosis</th>
<th>One DSM diagnosis</th>
<th>Two DSM diagnoses</th>
<th>Three DSM diagnoses</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>55</td>
<td>11 (6-17 - 2.9)</td>
<td>40 (73%)</td>
<td>50 (12.3)</td>
<td>7 (13)</td>
<td>22 (40)</td>
<td>19 (35)</td>
<td>7 (13)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AVH Characteristics</th>
<th>Duration AVH, N (%)</th>
<th>&lt; 6 months</th>
<th>&gt;6 months</th>
<th>&gt;12 months</th>
<th>&gt; 24 months</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 (4)</td>
<td>9 (16)</td>
<td>10 (18)</td>
<td>30 (55)</td>
<td></td>
</tr>
<tr>
<td>Other hallucinations, N (%)</td>
<td>19 (35)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Frequency daily- continuous , N (%)</td>
<td>31 (74)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duration hour-non stop , N (%)</td>
<td>23 (42)</td>
<td></td>
<td></td>
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<tr>
<td>Control sometimes- none , N (%)</td>
<td>37 (67)</td>
<td></td>
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</tbody>
</table>

References


Conclusion

AVH in a clinical setting occur in a broad spectrum of psychiatric disorders, ranging from developmental disorders to psychotic disorder. Moreover, AVH occur even in the absence of a formal DSM classification. Nevertheless, AVH were associated with significant distress in all individuals, indicating the need for diagnosis and treatment of AVH across diagnostic boundaries.
Auditory verbal hallucinations in youth: a longitudinal observational study

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Background: Auditory Verbal Hallucinations (AVH) are common in youth. For example, a Dutch general population study among 3870 children aged 6–7 years old showed a 9% prevalence rate of AVH [1]. Although AVH are transient in the majority of children, a subgroup experiences substantial suffering and problem behavior [1]. Also, persistence of AVH is associated with lower secondary school level [2]. Furthermore, the presence of AVH is associated with severe psychopathology (such as disruptive behaviour, attention deficit disorders, emotional disorders, personality traits and substance use disorders) and the development of psychotic disorders later in life [3]. For this subgroup, early detection and intervention is warranted, while for the majority of children with AVH medical involvement seems unnecessary. Unfortunately, at this time, we cannot accurately differentiate between those at risk and those with transient symptoms. The Brain Center Rudolf Magnus opened an outpatient Voices Clinic for youth. The Voices Clinic offers thorough diagnostic assessment and if indicated, treatment. Also, a longitudinal observational study started to reveal biological, psychological and social factors that predict outcome of youth with AVH.

Purpose of the study: The aim of this project is to define in youth which biological, psychological and social factors can predict development and persistence of AVH and co-morbid distress and dysfunction and, thereby, an increased risk for the development of more severe psychopathology. The results of this study will enable to predict in which subgroup of youngsters AVH are relatively harmless and will disappear over time and which subgroup is at high risk for persistence of AVH and the development of severe psychopathology and should receive treatment.

Methods: The study population consists of 180 children and adolescents with AVH aged 8–18 years and 180 siblings without AVH, aged 8–18 years. Assessments include questionnaires (concerning personality traits, coping style, self-esteem, childhood trauma and life events), structured clinical interviewing (AVH characteristics and screening for DSM disorders by means of MINI-KID), physical examination and neuropsychological tests. Also, parents will be assessed concerning personality traits and parenting style. All participants will receive re-assessments with a follow up duration of 5 years.

Results: We clinically assessed 40 children and adolescents (aged 6–18 years) of whom 29 (72%) were girls and 11 (28%) were boys. All children experienced distress at familial, social and/or school level related to their voices. AVH were associated with attention deficit disorder, autism spectrum disorder, anxiety disorders and depressive disorder as well as borderline personality traits and mild mental retardation. Moreover, 16 (40%) children met criteria for more than one DSM diagnosis. A formal psychotic disorder was diagnosed in 4 cases. Only 4 cases did not meet full criteria for a DSM classification.

Conclusion: AVH in a clinical setting occur in a broad spectrum of psychiatric disorders, ranging from developmental disorders to psychotic disorder. Moreover, AVH occur even in the absence of a formal DSM classification. Nevertheless, AVH were associated with significant distress in all individuals, indicating the need for diagnosis and treatment of AVH across diagnostic boundaries.


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Keywords
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