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Some considerations about auditory verbal hallucinations in the clinical field

Rozważania kliniczne dotyczące halucynacji słuchowych słownych

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Auditory hallucinations (auditory verbal hallucinations, AVH) are one of the most scientifically and clinically fervently studied phenomena in the current psychological and psychiatric literature. On the scientific level, studies on AVH have increased considerably in the last decade and new areas of research have opened up. In fact, various disciplines, such as neurology, neurobiology, neuroimaging, psychology and psychiatry, have offered significant contributions in facilitating a more accurate and precise understanding of it. On the clinical level, thousands of people who experience auditory hallucinations do not turn to appropriate services as they think they are deranged or insane. In particular, from the point of view of common sense, these people have always been believed to be schizophrenic.

This belief is also widespread among healthcare professionals (Parnas, 2013), and it is important to deal with this issue, particularly for two reasons: first, to expose and understand the phenomenon and second, to enable the affected people to face their fears and improve their life quality and health. In this paper, we address some issues concerning the way AVH are considered in the clinical setting. Clinicians who understand the complexity and the internal mechanisms associated with AVH in people with different diagnoses and in non-clinical populations can help patients address their fears about the symptoms and use therapeutic procedures to improve patients' relationship with the voices. The intention of this paper is to provide suggestions to physicians, clinicians and healthcare and social workers on how to address the experience of AVH in clinical settings.

This novelty is very important and can change the way diagnoses are made in clinical settings, for the different clinical, empirical and conceptual implications. The first concerns the interesting and still unresolved question of how some individuals live with the experience of AVH without any personal, social or professional compromises and how others experience them with serious compromises in their lives to the point of seeking the help of a psychologist or psychiatrist.

While we are waiting to understand this, we can make some reflections below with the intention of facilitating a more precise understanding of the phenomenon of auditory hallucinations.

For example, there is now evidence that AVH is present in disorders that are not related to schizophrenia.

First, prevalence studies indicate that AVH can be experienced by people with a variety of diagnoses, such as dissociative identity disorders (DID) (van der Hart et al., 2006; Middleton & Butler, 1998; Perona-Garcelán et al., 2016; Tutkun et al., 1995) and borderline disorders (40%), in which they are most common (Dorahy et al., 2009). They are also present in bipolar disorder (45%), anxiety disorders (14%), autism (6%) and post-traumatic stress disorder (15%) (Blom and Sommer, 2010).

AVH can also occur secondary to nervous system disorders, including Parkinson's disease, stroke and migraine, lesions of the temporal lobe, brainstem or thalamus, tumours or sleep problems such as hypnagogic hallucinations or hypnopompic hallucinations and even psychotropic substance consumption (Waters et al., 2018).

Healthcare professionals should understand that AVH may not be pathological or psychologically significant in the general population. With reference to prevalence, some studies suggest that AVH accounts for 4% to 21% of this group. Hallucinations in this group are often transient and sporadic in nature, and people often manage to live with them as they are discontinuous. However, it has been found that a significant number of individuals hear voices that are comparable in terms of frequency, form, and content to those heard by psychiatric patients, but without social or occupational compromise (Sommer et al., 2010).

This means that AVH cannot be uncritically considered a psychotic symptom. Furthermore, treatment with anti-psychotic drugs may not be effective and, in fact, may be extremely harmful (Lawrence et al., 2010).

People with these characteristics may never develop a psychotic disorder. However, as a result of misconception, the person involved may not be offered a different treatment

using other approaches. Another implication is that the stigma is often associated with people diagnosed with schizophrenia, which may result in the non-acceptance of drug treatment and the associated dispersal of treatment. Further specific evidence suggests that AVH can lead to serious social and psychological impairments, but not the correct evaluation of reality or lack of insight, and as such cannot be considered a psychiatric disorder per se (Preti et al., 2014). With reference to our objective, which is to help physicians and healthcare professionals better understand the complexity of AVH, the main psychological and neurobiological theories, even in the absence of a psychotic disorder, that can contribute to our understanding of AVH are briefly and non-exhaustively listed below.

Fernyhough (2004) proposed a descriptive model for AVH, in which the inner speech preserves the dialogical characteristics of communicative exchanges that might be expanded or condensed: AVHs develop when the subject's inner speech involves inappropriately expanded inner dialogue, leading them to consider the voices in the dialogue to be alien.

Perona-Garcelán et al. (2016) theorised that healthy individuals become vocal hearers through a process of “very intense self-focused attention” and “extreme contact with [...] internal events,” i.e. through intense sensitivity or absorption capacity in internal states. This is compatible with the absorption theory given by other authors (Bigelsen et al., 2016; Somer et al., 2016), who found that intense absorption in the phenomenon of daydreaming is the most important factor that differentiates healthy from what they term as maladaptive daydreaming (MD).

Additionally, Nayani and David (1996) identified a model of AVH increasing in complexity over time, with the addition of new voices, extended dialogues, and a bigger intimacy between subjects and voices.

Other psychological studies have theorised a relationship between hearing voices and traumatising experiences, both in clinical and non-clinical groups, especially in the case of relational experiences, such as in situations of abuse, abandonment, even in childhood (Moskowitz et al., 2009; Shevlin et al., 2007). These studies explain how people can consider “external” or “alien” normal internal discourses and also allow to focus clinical attention on how people determine the use of voices in interactions and contexts. This suggests focusing the attention of a clinician on: 1) the use of voices and not on their content and 2) the adaptation of the subject to the social context of reference and not on the search for an absolute reality or truth.

With regard to neuropsychological studies, several authors have made some contributions.

Seok et al. (2007) found white matter (WM) deficits in the frontal and temporal areas associated with AVH, suggesting that disconnection in the left fronto-temporal area may contribute to the pathophysiology of AVH. Functional magnetic resonance imaging studies (Mechelli et al., 2017) in patients with schizophrenia and AVH found that when the brain is

“at rest,” and not engaged in direct activity, there is reduced connectivity in the primary and secondary auditory cortex and in the linguistic processing areas. Northoff and Qin (2011) found an abnormal interaction between the auditory cortex and the default mode network (DMN). The DMN is a network of brain regions that are active when an individual is not concentrating on the outside world and the brain is at wakeful rest. It was suggested that this may be responsible for AVH. According to Allen et al. (2012), a high resting state DMN induces a high state of rest in the auditory cortex. Consequently, the subsequent abnormal interaction is experienced as an external event that is perceived as a voice.

These research works provide an additional explanation of how AVH can occur. The presence of a disconnection with the auditory cortex can therefore lead to a distorted linguistic interpretation. These aspects would significantly circumscribe the phenomenon of AVH, relativizing it from other aspects of mental illness.

Some other neuropsychological studies have developed specific models to explain AVH, such as the theory of misattributed inner speech, language production, aberrant memory and early automatic sensory processing errors. The former (the theory of the misattribution of inner speech) argues that patients have a weak self-regulation of thoughts due to a cognitive impairment. Consequently, they attribute such thoughts to external authors (Frith and Done, 1988). In the aberrant memory model, the AVH would be caused by a failure of the recalled inhibition that produces an involuntary memory activation. This causes intrusive memories that emerge “out of context” and a final perception of “otherness” (Jardri et al., 2011).

These studies allow to understand how the external allocation of voices for a subject takes place. Knowledge of these processes can help explain the voices to the patient, and thus allow them to manage the fear of being “insane” or of suffering from a mental disorder.

Knowledge of these processes can allow clinicians to extend their vision of the phenomenon – instead of resorting to simplifications or reductionisms – and develop appropriate psychotherapeutic techniques depending on the mechanisms involved in voice-hearing.

Considering that whether a person can live with voices or not depends on personal experiences, it is possible to confirm the idea that AVH can be managed or experienced in a healthy manner (Iudici et al., 2019).

CONCLUSIONS

The problems highlighted above were aimed at raising the awareness of both psychologists and psychiatrists to carry out a diagnostic assessment of AVH with caution with respect to a phenomenon, that of AVH, based on an experiential continuum (Iudici et al., 2017) that still carries with it a multifaceted variety of manifestations. As such, it is necessary to reduce the risk of using easy cause-effect associations or reductionisms that could lead to improper

treatment with respect to the set of problems experienced. It is worthwhile in this historical timeline to use an ideographic approach, given the scarce presence of nomothetic data. The issue of AVH, therefore, requires further investigation and presumably through tools that allow to capture the specific experiences encountered rather than the categorical aspects.

This should also avoid the problem of over-inclusion (Faccio et al., 2013), which is not a new but still topical issue. Knowledge of such research may enable professionals working in the mental health system to improve the assessment and treatment of people with AVH.

Conflict of interest

The authors do not declare any financial or personal links with other persons or organisations that might adversely affect the content of the publication or claim any right to the publication.

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