A phenomenological exploration of the voices reported by borderline personality and schizophrenia patients

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Short Title: Verbal auditory hallucinations: a phenomenological exploration

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Abstract

Introduction: Over time, there have been different views regarding the verbal auditory hallucinations (VAH) reported by borderline personality (BPD) and those by schizophrenia patients. More recently, their similarity has been emphasized, a view that undoubtedly has significant implications in terms of differential diagnosis and management. To explore this important issue, we undertook a detailed phenomenological assessment of persistent VAH reported by BPD and schizophrenia DSM-IV participants. Methods: the Psychotic Symptoms Rating Scale (PSYRATS), the Revised Beliefs About Voices Questionnaire (BAVQ-R), the Multidimensional Scale for Hallucinations (MSH) and a detailed clinical interview were administered to 11 BPD and 10 schizophrenia DSM-IV participants. Results: the VAHs of both groups were similar regarding intensity, reported as located inside or outside the head, and frequency in which they were described as a third person phenomenon. However, the patients' stance towards their VAH was clearly different. Whilst BPD patients identified them in a clear way in terms of gender and age and disliked them, schizophrenia patients identified them more vaguely, reported them both as more disruptive but at the same time engaged with them more positively; schizophrenia patients also integrated their VAH more into delusions. Discussion: whilst reporting similar intensity of their VAH, the two groups' stance towards them were strikingly different in that BPD participants regarded them as identifiable and unequivocally unpleasant whilst schizophrenia participants regarded them in a rather vague and ambiguous manner. Methodologically, this preliminary study suggests that in-depth phenomenological assessment can help to elucidate the differential diagnosis of VAH in these, a possibly other, clinical groups. Further research is warranted to establish whether these preliminary findings are replicated on a bigger clinical sample.

Introduction

Up to half of borderline personality disorder patients (BPD) report verbal auditory hallucinations (henceforth VAH) [1, 2] which are persistent, longstanding, and associated with significant distress and disability [3]. For example, 56.6%, 34.9%, 33.8%, and 20.1% out of 260 BPD patients presented 'quasi-psychotic thought' (defined as transitory circumscribed hallucinations and delusions) at baseline, 2-year, 4-year, and 6-year follow up respectively [4], as assessed by the Revised Diagnostic Interview for Borderlines [5] and the Structured Clinical Interview for DSM-IV Axis II Personality Disorders (SCID-II) [6]. These auditory experiences reported by BPD patients have received a variety of names, including 'traumatic-intrusive hallucinosis' [3], 'non-psychotic hallucinations' or 'quasi-psychotic hallucinations' [4], and 'pseudo-hallucinations' [7], all terms with theoretical import [8, p. 49-60]. For example, it has been stated that patients with psychotic illnesses present true hallucinations whilst patients without psychotic illnesses present pseudo hallucinations [9], a distinction usually based on two traditional criteria, namely location (i.e., whether they are reported as originated inside or outside the head) as well as insight (whether they are held to be real perceptions or not) [10]. The latter authors concluded, after reviewing the literature, that pseudo hallucinations cannot be readily distinguished from phenomena such as hallucinations, imagery, obsessional imagery, re-experiencing, and dissociative experiences [10]. Similarly, when the auditory hallucinations of 197 patients with psychosis (80% with schizophrenia, 13% with affective psychosis, and 3% with nonorganic psychosis) were studied, a third reported the VAH as coming from inside the head, a third both from inside and outside the head, and a third as coming from outside their head [11]. Importantly, the VAH reported as coming from inside the head did not appear clinically more benign than the external ones [11]. In the present study, we have adopted a definition based on what is reported by the patient, namely, 'a statement made by a person describing themselves as being aware of speech in absence of any intersubjective verifiable source.'

Distinguishing VAH reported by BPD patients from those reported by people with schizophrenia is important for two reasons. Diagnostically, the distinction bears on the issue of the differential diagnosis of the two conditions, and related to it, how actions allegedly committed under the influence of VAH are considered from a forensic point of view. Therapeutically, understanding the phenomenological context of VAH can inform treatments, either psychological or pharmacological. The present study adopted a phenomenological approach to try and capture the experience a person has towards a mental event they report is taking place in their inner realm. In this context, the clinical expertise of those interviewing the participants is crucial for such a phenomenological

approach to be productive; in this study, all assessors were clinical psychiatrists with years of experience in the care of people with mental ill health.

The participants in the present were required to have been presenting VAH persistently, which was here operationally defined as VAH reported as present for at least the four weeks prior to recruitment as well as on the day of assessment. We selected schizophrenia patients as the comparison group for three reasons. First, VAH are central to the diagnosis of schizophrenia. Second, a high proportion of schizophrenia patients report VAH [12, 13]. Third, the phenomenology of VAH in schizophrenia has traditionally been well characterized by the First Rank Symptom (FRS) criteria [14], i.e., audible thoughts or thought echo and third person auditory hallucinations (i.e., voices heard arguing or commenting on one's actions). Another methodological issue relevant to any study of psychotic symptoms is the fact that alcohol and drugs misuse can be associated with psychotic phenomena, including VAHs. The potential influence of this factor has not been reported in previous studies [4, 1] so we have included two instruments focused on screening for alcohol and substance misuse (see below). In this parallel design study, the phenomenology of persistent VAH of BPD patients and schizophrenia patients was studied in detail through a clinical interview, self-report instruments, and clinician rated scales. The primary hypothesis of the study was that the VAH of BPD and schizophrenia patients would be significantly different in terms of intensity, as determined by the total score on the Auditory Hallucinations Subscale of the Psychotic Symptom Rating Scale (PSYRATS) [15, 16], with schizophrenia patients reporting more intense VAH. The secondary hypothesis was that the phenomenology of the AVHs in the two groups would not be significantly different, as assessed by the PSYRATS, the Multidimensional Scale for Hallucinations (MSH) [17], the Revised Beliefs About Voices Questionnaire (BAVQ-R) [18], and a detailed clinical interview.

Materials and Methods

Inclusion criteria

Participants had to meet the DSM IV diagnosis of borderline personality disorder (BPD) or schizophrenia but must not meet both. Their age was between 18 to 65 years of age, with English as their first language, and they had to report having had VAHs for the 4 weeks prior to recruitment to the study as well as on the day of assessment. Patients were required to have capacity to provide informed consent to participate in the study.

Exclusion criteria

Potential participants were excluded if they met the diagnostic criteria for any other psychotic disorder, bipolar affective disorder, depression with psychotic symptoms, delirium or psychotic

disorder due to the use of alcohol, substances, or any other cause, and dementia. Patients were also excluded if they met the criteria for both schizophrenia and BPD, if they lacked capacity to provide informed consent, or if their risk assessment indicated that they currently posed a high risk to themselves or others.

Instruments

The following instruments were utilized to characterize the participants' clinical presentation and phenomenology:

- The Auditory Hallucinations Subscale of the Psychotic Symptom Rating Scale (PSYRATS) [15, 16], a semi-structured interview to assess hallucinations, a 11-item instrument which has been shown to describe three dimensions for hallucinations, i.e., distress and negative content; frequency and duration; and beliefs about voices' reality, location, control, and disruption, with good validity as well as inter-rater and retest reliability.

- The Multidimensional Scale for Hallucinations (MSH) [17], an 11-item observer rated analogue scale to assess the following characteristics of hallucinations: insight, vividness, complexity, localization, intensity, control, constancy, bizarreness, situation, attribution of hallucinations as well as their relationship to delusions.

- The Revised Beliefs About Voices Questionnaire (BAVQ-R) [18], a self-report instrument to assess patients' beliefs, emotions, and behaviour about their auditory hallucinations, a 35-item self-report measure of peoples' beliefs about auditory hallucinations and their emotional and behavioural reactions to them, which has been shown to describe these features along the dimensions of five factors, namely 'malevolence', 'benevolence', 'omnipotence', 'resistance', and 'engagement' (Cronbach's α for the five dimensions 0.74- 0.88).

- A semi-structured interview to gather information on the gender (s) and age (s) of each VAH, age when VAH started, whether the VAH were first, second or third person; if they ordered the person to do anything and if so, whether the order was of a suicidal, homicidal, self-harm, or neutral nature; and, finally, the time course of the VAH (whether they were unremitting, stress-related intermittent, or non-stress related intermittent). Socio-demographic information as well as information regarding

previous pharmacological and psychosocial treatments was obtained. The semi-structured interview is available upon request from the corresponding author.

- The Fast Alcohol Screening Test (FAST) [19], a 4-item alcohol screening questionnaire with sensitivity and specificity, to screen for and the Drug Abuse Screening Test (DAST) [20], a 28-item self-administered questionnaire, to ascertain alcohol and drug misuse, respectively.

- The Structured Clinical Interview (SCID I) for the diagnosis of psychotic disorders [21] and the SCID II for the diagnosis of BPD [6].

Recruitment

The Oxford Health NHS Foundation Trust' community mental health teams and inpatient services were asked to identify potential participants according to the inclusion and exclusion criteria. Potential participants received the Patient Information Sheet and had at least two weeks to decide whether they wanted to participate in the study. If there were doubts about eligibility, their consultant psychiatrist or care coordinator were contacted. Thus, this was a convenience sample. Thirty-eight potential participants were identified. Seventeen patients were not included for the following reasons: four had a diagnosis of schizophrenia but did not report voices, four had a diagnosis of schizoaffective or bipolar disorder, two had both diagnoses of BPD and schizophrenia, two relapsed and lacked capacity to consent, two patients who had initially accepted then declined to participate, two patients did not attend repeated appointments, and one patient moved out of the area. This left a sample of 11 BPD participants and 10 schizophrenia participants. On the day of the assessment, the assessors explained the project again and participants provided written consent.

Assessment

The assessment was undertaken by two clinical psychiatrists with Royal College of Psychiatrists' membership (MRCPsych). The assessors were not aware of the participants' diagnosis at the start of the assessment. The assessment proceeded in the following order. During the first part of the interview, the PSYRATS, BAVQ-R, and MSH were administered, followed by the FAST and DAST tests; at this point there was a break. During the second part of the interview, the assessors administered the semi-structured interview, followed by the SCID I and SCID II for psychotic disorders and BPD, respectively. Three steps were taken to reduce the risk of the assessors becoming aware of the participants' diagnosis before the assessment: first, participants were referred to the assessors omitting any diagnostic or clinical information; second, assessors did not assess patients who were

known to them, and third, the assessment confirming the participants' diagnosis was carried out after the phenomenological assessment of the VAH.

Statistical analysis

Descriptive statistics were initially calculated. Subsequently, T-test and Chi-square tests were used to compare the frequency of certain features in the two groups. A T-test was used to compare the total intensity of the VAH between both groups. We then ran an MANOVA including all the individual items of the Auditory Hallucinations Scale of the PSYRATS, the Multidimensional Scale for Hallucinations (MSH), and the five formerly described factors (18) of the Revised Beliefs About Voices Questionnaire (BAVQ-R), with diagnosis as the between-subjects factor. The analyses were ran using SPSS 25.

Results

The two groups showed no significant differences in terms of age, ethnicity, social status, and years of education (Table 1). The BPD group included more females, and people living independently, whilst the schizophrenia group included more single individuals and people living in supported accommodation. The two groups were not significantly different in terms of alcohol or substance misuse as quantified by the FAST and DAST, respectively. Regarding any treatment ever received, schizophrenia patients had been prescribed antipsychotics significantly more often. Both groups did not significantly differ in terms of antidepressants, mood stabilizers, or benzodiazepines prescribing. They did not differ in the use of CBT, group interventions, other talking therapies, day hospital input, and full-time hospitalization.

[Table 1 about here]

Regarding the primary hypothesis of this study, we found that BPD patients and schizophrenia patients obtained almost identical total scores on the Auditory Hallucinations Subscale of the PSYRATS Scale (BPD patients: mean = 31.54; SD = 5.39; schizophrenia patients = 31.80; SD = 6.37; T-test = -.099; df = 19; p (2-tailed) = .922). (Table 2)

[Table 2 about here]

The secondary hypothesis of the study was that the VAH of BPD patients and schizophrenia patients would be phenomenologically different, as assessed by the PSYRATS [15], the MSH [17], and the BAVQ-R [18]. These findings are reported next.

[Table 3 about here]

As indicated in Table 3, the two groups were significantly different in terms of 3 items of the Auditory Hallucinations Scale, namely, beliefs regarding the origin of the VAH, intensity of distress caused by the VAH, and disruption to life caused by the VAH. The two groups were also significantly different in terms of two items of the MSH, namely insight into the VAH and their relationship to delusions. Finally, the two groups were significantly different in terms of the BAVQ-R's engagement factor. Table 4 shows the scores for each group on the items that were found to be significantly different.

[Table 4 about here]

Specifically, whilst BPD patients held a less than 50% conviction that the VAH originated from external causes, schizophrenia patients held 50% or more conviction (and up to 100% conviction) that VAH originated from external causes. Regarding the intensity of the distress caused by the VAH, BPD patients described them as very distressing to extremely distressing, feeling the worst he/she could possibly feel whilst schizophrenia patients described them as moderate to very distressing. Despite this, BPD patients described the VAH as causing moderate amount of disruption to life causing some disturbance to daytime activity and/or family or social activities; in contrast, schizophrenia patients described them as causing severe disruption to life so that hospitalization is usually necessary or if in supported accommodation the patient experience severe disruption of life in terms of activities, daily living skills and/or relationships. Regarding the MSH, schizophrenia patients have less insight into their VAH as product of own mind and they are more integrated into a concomitant delusion. Finally, schizophrenia patients' engagement with their VAH was significantly higher than that of BPD patients.

Of note, the VAH of the two groups were not significantly different in terms of location (i.e., inside or outside the head), whether patients could control them, or in terms of frequency, duration, loudness, and amount as well as degree of negative content. Regarding other sensory modalities, both groups were not significantly different in terms of the frequency of visual, olfactory, gustatory, and tactile hallucinations. Regarding the MSH, there were no significant differences in terms of the VAH's localization (internal versus external spatial origin), vividness (sharpness and fullness of detail with which the hallucination is described), complexity (richness in number, detail, and component parts of the VAH), perceived severity, controllability (extent of the VAH being under voluntary control), constancy (variability in content from time to time), bizarreness (dissimilarity to normal perception), situation (i.e. restriction to specific places), and attribution (whether patients attribute hallucinations to a specific cause or event). Regarding the factors of the BVQ the two groups were

not significantly different in terms of the 'malevolence', 'benevolence', 'omnipotence', and 'resistance' factors.

Phenomenology of the main VAH

The two groups were not different on whether the main VAH was first, second, or third person (all Chi-Square < 2.432; df = 1; al p > .119), i.e., there were no differences in whether the VAH was described as the patients' own, whether the VAH talked to them, or whether the VAH was talking about them. Also, there were not differences on whether the voices were described as single words or brief phrases with no specific addressee (Chi-Square = .382; df = 1; p = .537). Regarding other features of the main VAH, schizophrenia patients more often indicated that the VAH was of an unknown gender or both female and male (Chi-Square = 4.29; df = 1; p = .038). Schizophrenia patients more often were unable to state the age of the VAH (Chi-Square = 4.29; df = 1; p = .038). No schizophrenia patient reported that their VAH had started when they were below the age of ten, which was the case amongst BPD patients (Chi-Square = 4.09; df = 1; p = .043). The two groups were not significantly different on whether their main VAH was associated to stress or whether it was continuous, whether the voice was identified as the voice of a relative, and whether the voice directed them to complete suicide, self-harm, or homicide. Of note, schizophrenia patients described more often that the main voice also instructed them to do things that were unrelated to harming themselves or others (Chi-Square = 3.834; df = 1; p = .050). Both groups were not significantly different on whether they had acted upon the order of the VAHs, as most patients in both groups had done so.

Phenomenology of the other VAHs

Eight BPD patients reported, in addition to the main one, a second VAH, and seven reported a third one. Amongst the schizophrenia patients, five reported a second VAH, and four reported a third one. Regarding the second voice, both groups were not significantly different in terms of its gender although, again, three schizophrenia patients indicated that their second VAH was either of unknown gender or both parents. The age of the second VAH, the age at which this had started, and whether it was stress-related or continuous were not significantly different between the two groups; the two groups were not significantly different on whether the second VAH was identified as a relative or whether it told them to complete suicide, self-harm, or homicide. Again, schizophrenia patients reported significantly more often that their second VAH told them to do things that were unrelated to harming themselves or others (Chi-Square = 11.66; df = 2; p = .003). Both groups were not significantly different on whether they acted upon the commands of the second VAH. Regarding a third VAH, both groups did not significantly differ in terms its gender, age, age at which it had

started, whether it was stress-related or continuous, or whether the VAH was identified as a relative. Again, the third VAH of schizophrenia patients often instructed them to do things that were unrelated to harming themselves or others.

Discussion

This study compared the characteristics of persistent VAHs reported by BPD patients and by schizophrenia patients and confirmed its primary hypothesis that both groups would describe a similar level of intensity of their VAHs as assessed by the Auditory Hallucinations Subscale of the PSYRATS Scale [15, 16]. This agrees with previous authors, who found that at least 50% of BPD patients reported VAH [1,2, 22]. Regarding the second hypothesis of the study, i.e., that there would be significant phenomenological differences between both groups, the detailed assessment provided a complex and intriguing picture. First, BPD patients reported that, whilst the VHA caused less disruption to their life, they had a less positive relation with them than the schizophrenia patients. Second, schizophrenia patients had less insight into their VAH and integrated them into delusions but, although their VAH caused more disruption to their lives, they, paradoxically, reported a more positive relationship with them. Third, regarding the main VAH, schizophrenia patients were more often unable to identify their VAH's gender or age and described that the VAH instructed them to do things unrelated to harming themselves or others. Thus, these preliminary findings suggest that the relationship of these schizophrenia patients to their VAH was more ambivalent and vaguer than that of BPD patients. Specifically, whilst schizophrenia patients reported more disruption to their life caused by the VAH, in agreement with other studies [23], they also engaged positively with the VAH, as suggested by the factor Engagement of the BAVQ-R, which includes emotional and behavioural ways of relating to voices, such as 'My voice reassures me' or 'I seek the advice of my voice'. Of note, the factor Engagement of the BAVQ-R is associated with reduced levels of depression and anxiety [18]. Regarding vagueness of their VAH, schizophrenia patients were less able to identify the gender or age of their VAH compared to BPD patients. Taken together, these findings suggest that the stance of schizophrenia patients with respect to their VAH could be described in terms of what the Frenchman Phillipe Chaslin called 'discordant affect' [24] towards their mental events. In clear contrast to this, BPD patients unambiguously reject the VAH which they identify with certainty. Finally, the VAH of both groups were not significantly different in terms of Schneider's First Rank criteria, i.e. their VAH were both second and third person, in agreement with [2], who reported that fifty percent of their BPD patients had second person VAH and a significant minority also reported third person VAH.

It is worth noticing the significant descriptive overlap in terms of the features of the VAH of both groups, including whether they were described as located inside or outside the head, whether they believed the VAH to be due to an external cause, whether they could control them, as well as their frequency, duration, loudness, and amount and degree of negative content. These findings expand previous reports [11, 1], on the fact that describing the voices as external or internal appears to be uninformative. Also, we found no significant differences on the VAH's vividness, complexity, intensity, constancy, bizarreness, restriction to specific places, or attribution to a specific cause or event. Finally, there were no differences on whether the two groups attributed malevolence, benevolence, and omnipotence to their voices and, importantly, whether they believed that they could resist what the VAHs told them to do. Interestingly, schizophrenia patients, and no BPD patients, reported that their main, second, and third VAH instructed them to carry out neutral actions unrelated to harming themselves or others, in agreement with their rather ambivalent stance towards the VAH. Our findings suggest similarities and differences between the characteristics of the VAH reported by BPD patients and schizophrenia patients. Whilst some authors have emphasized their similarity [25, 26], it is argued here that further characterizing how patients describe their VAH as well as their stance towards them, adds valuable information for the differential diagnosis.

If these preliminary results were confirmed in larger studies, they would help to differentiate the VAH of BPD patients from those of schizophrenia patients based on the phenomenology of the experiences. Specifically, the ambivalent stance of people with schizophrenia towards their VAH, namely, experiencing them as highly disruptive as well as engaging with them and finding them less distressing, would aid clinical diagnosis in clinical as well as forensic contexts. Therapeutically, it is possible that the VAH to which patients have an ambivalent stance might fall within the realm of positive psychotic symptoms of schizophrenia and likely to respond to treatment with antipsychotic medication as well as CBT for psychosis.

One strength of the present study is that it involved a detailed phenomenological assessment of patients' experiences. The assessors had significant experience in descriptive psychopathology, significant experience in the clinical care of both BPD as well as schizophrenia patients and, spent a significant amount of time with the participants, capturing quantitative as well as qualitative information. Another strength of the study is that it characterized in detail the use of alcohol and substances in the participants, which could impact on the findings of any study on VAHs and was not reported in previous studies [4, 1]. For example, a study reported that three quarters of the participants had a history of alcohol and/or illicit drug use, despite which the authors indicated that

no patients reported psychotic symptoms in relation to alcohol or illicit drug use [2]. We found no significant difference in alcohol or substance misuse between both groups, thus strengthening the validity of the findings reported. Regarding weaknesses of the study, the present study is clearly limited by its sample size, which makes its findings exploratory and preliminary, particularly when the features of the main, second and third voice are also investigated. A sufficiently powered bigger study taking the same detailed phenomenological approach is clearly required. Another limitation of the study is the conflict between the use of standardised instruments and the nature of the phenomenological inquiry, which requires a conversation between the subject and the investigator that relies on the method of empathy; we have attempted to reduce the extent of this conflict by using a semi-standardized interview which provided the opportunity for a non-standardized dialogue between patient and clinicians. In conclusion, this study adds to the literature suggesting that the VAH of BPD and schizophrenia patients show a significant degree of descriptive overlap, such as intensity, location inside or outside the head, and their third person character. The study also provides preliminary support for the view that BPD patients describe them in a clear manner and strongly reject them, whilst schizophrenia patients report them as highly disruptive but, rather puzzlingly, engage positively with them and describe them more vaguely. Clearly, these results should be confirmed in a larger study.

Statement of Ethics

This study received ethics approval by the NRES Berkshire Research Ethics Committee (12/SC/012). All subjects who participated in this study have given their written informed consent.

Conflict of Interest Statement

The authors have no conflicts of interest to declare.

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Author Contributions

AB made a substantial contribution to the conception and design of the work, analysis, and interpretation of data, drafting the work and approving the final version. SP made a substantial contribution to the conception and design of the work, drafting the work and finally approving the final version to be published. TB, RD, GH and AL made a substantial contribution on the acquisition, analysis, and interpretation of data for the work, revising the work critically and final approval of the version to be published. AB, TB RD, GH, AL, and SP agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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