Short communication

Voice-hearers’ beliefs about the causes of their voices

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Abstract

Despite empirical evidence for multifactorial causes of voice-hearing, people’s own beliefs about what caused their voices are understudied. People with distressing voices (n=125) completed measures of trauma, post-traumatic stress disorder (PTSD) symptoms, and beliefs about causality. Most participants reported trauma in the past (97%) and PTSD symptoms were prevalent. Traumatic experiences were the most commonly endorsed causal factor of voice-hearing (64%), followed by distress (62%). Beliefs about biological causes, including drug use (22%), were least endorsed. Those who experienced more traumatic events and more PTSD symptoms were more likely to endorse trauma as a causal factor of voice-hearing ($R^2=0.38$).

1. Introduction

Whilst psychosis is traditionally conceptualised as a biomedical problem, multifactorial causality has been the consensus in the last three decades. The role of social factors is increasingly recognised, and the general public appears more likely to endorse psychosocial causes than biomedical attributions for psychosis (Read, 2019, 2020). Beliefs about mental health problems influence help-seeking behaviour, with positive associations found between beliefs about psychological and biological causality and engagement and adherence to psychological and pharmacological interventions, respectively (Avery et al., 2020). Most people with psychosis appear to give psychosocial causal explanations to their problems (Read, 2019, 2020), which has been found to predict engagement with full cognitive behaviour therapy for psychosis (CBT-p; Freeman et al., 2013). Evidence suggests that clinicians’ beliefs about causality reflect their training, which may limit their ability to see the benefit of other types of interventions (Carter et al., 2017). Biogenetic beliefs are also related to perceptions of dangerousness and pessimism about recovery (Carter et al., 2019; Longden and Read, 2017). Although beliefs about causality play an important role in the offering and uptake of various interventions (Carter et al., 2017; Freeman et al., 2013), voice-hearer perceptions about the causality of their voices, including the causal role of trauma (Bailey et al., 2018; Varese et al., 2012), have not yet been explored. We therefore conducted an exploratory study, using the causation subscale of the Illness Perception Questionnaire (IPQ) in voice-hearers (Weinman et al., 1996), with trauma included as a possible causal factor (see Supplementary Materials).

2. Method

Participants were recruited as part of the Temstem trial (a randomized controlled trial investigating a smartphone application for voice-hearers, ISRCTN75717636, Jongeneel et al., 2018). Ethical approval was provided by the medical ethics committee of the VU University Medical Centre (METC number: 2015.435/ NL53684.029.15). Participants were included if they experienced distressing voices for one month or more and at least four days a week in at least three of the last four weeks. For exclusion criteria see Jongeneel et al. (2018).

Assessments of trauma, PTSD symptoms and beliefs about the causes of voices were conducted at baseline. To avoid priming of trauma as a causal factor, beliefs about causes were assessed first. Participants could endorse multiple beliefs on a 13-item questionnaire listing potential causal factors of voices, each scored on a scale from 'Strongly disagree' to 'Strongly agree' (adapted from the IPQ, Weinman et al., 1996) (see...
Supplementary Materials). Items were later dichotomised to ‘No’ (Strongly disagree, Disagree, or Neither agree or disagree) or ‘Yes’ (Agree or Strongly agree). Trauma events were assessed using the Trauma and Life Events (TALE) checklist (Carr et al., 2018) which was developed for people with psychosis and assesses 20 types of traumatic and adverse life events that can be divided into ten categories. The Trauma Screening Questionnaire (TSQ) (Brewin et al., 2002), a brief 10-item screening questionnaire (‘Yes’ or ‘No’ response) with good predictive validity, was used to assess PTSD symptoms. A score of ≥ 6 on the TSQ is indicative of the presence of PTSD diagnosis in people with psychosis (De Bont et al., 2015). The data were analysed using IBM SPSS software (Version 26) descriptive statistics and logistic analyses. We used logistic regression analysis (enter method) to investigate the relationship between the number of traumatic experiences and PTSD symptoms as predictors of endorsing trauma as a causal factor of voices.

3. Results

All participants were in outpatient care. The mean age was 42.6, S.D. = 11.7. Nearly all participants (n=121, 97%) experienced trauma in their past. Psychosis-related trauma (n=109, 90%), which included the use of force during a hospital admission and experiencing or witnessing threatening or shocking events while in care, attachment disrupting events (n=105, 87%), which included loss of a parent due to death or being placed in care, were most commonly reported. This was followed by physical abuse (n=72, 60%), bullying (n=66, 55%), severe neglect (n=62, 51%), emotional abuse (n=55, 46%), and sexual abuse (n=54, 45%). Discrimination (n=34, 28%), accidents (n=29, 24%), and war trauma (n=6, 5%) were least often reported. Participants (n=114) did often report PTSD symptoms, which included concentration problems (n=78, 68%), being jumpy or startled at something unexpected (n=75, 66%), and involuntary thoughts or memories about the events (n=72, 63%). Almost half of participants experienced six or more PTSD symptoms (n=55, 48%).

Past traumatic experiences were the most commonly believed cause of voice-hearing, followed by distress (Table 1). Biological causes, which included the use of recreational or prescription drugs and genes, were reported less than psychosocial factors, which included personality and state of mind. Environmental causes, which included pollution and germs, were least often endorsed. Most participants (n=78, 62%) endorsed a combination of trauma and another type of psychosocial cause (e.g., distress, other people, personality, state of mind, chance, or personal behaviour). Only two participants (2%) singularly endorsed trauma, without psychosocial factors and 31 participants (25%) reported psychosocial factors without endorsing trauma.

Table 1

| Causes of voices | n  | %     |
|------------------|----|-------|
| Psychosocial causes |   |       |
| Past traumatic experiences | 80 | 64.0  |
| Distress | 77 | 61.6  |
| Other people | 67 | 53.6  |
| Personality | 64 | 51.2  |
| State of mind | 58 | 46.4  |
| Chance | 41 | 32.8  |
| Personal behaviour | 33 | 26.4  |
| Biological & other causes |   |       |
| Hereditary/genes | 33 | 26.4  |
| Recreational or prescription drugs | 28 | 22.4  |
| Poor medical care | 14 | 11.2  |
| Diet | 14 | 11.2  |
| Pollution | 7  | 5.6   |
| Germ or virus | 5  | 4.0   |

symptoms, were found to contribute to the model with the causal factor trauma (0—No, 1—Yes) as the dependent variable ($R^2=0.38$). For every one unit increase in the number of traumatic events [Exp (B)=1.32, 95% CI (1.13, 1.56), $p=0.001$] and PTSD symptoms [Exp (B)=1.25, 95% CI (1.06, 1.47), $p=0.008$], the estimated odds ratio favoured a 32% and 25% increase in likelihood, respectively, of endorsing trauma as a causal factor of voice-hearing.

4. Discussion

This study is the first to investigate voice-hearers’ beliefs about the causes of their voices by explicitly asking questions about their beliefs using a questionnaire. The findings reveal that past traumatic experiences were the most commonly endorsed cause, followed by other psychosocial factors. Biological causes were less often endorsed. In line with traumatic experiences being commonly endorsed as a causal factor, virtually all participants experienced trauma, and nearly half reported six or more PTSD symptoms. Participants who experienced more traumatic events and PTSD symptoms were more likely to endorse trauma as a causal factor of voice-hearing. Therefore, voice-hearers with greater trauma exposure and associated PTSD symptoms appear to recognise the psychological impact of these experiences including its role in their voices. These findings support previous research revealing the embodiment of emotional conflict in voices following traumatic experiences (Cortens and Longden, 2013) and overall preference for psychosocial causes in people with psychosis (Freeman et al., 2013; Read, 2019, 2020). The findings also expand the evidence base by demonstrating that voice-hearers tend to attribute their voices to trauma and other psychosocial factors, consistent with their experience of trauma and PTSD symptoms and research on the causal role of trauma (Bailey et al., 2018; Varese et al., 2012).

The finding that trauma and psychosocial causal factors of voice-hearing were more commonly endorsed than biological causes aligns with a study about clinician beliefs about the causes of psychosis (Carter et al., 2017). However, clinicians more frequently endorsed biological causes in comparison to voice-hearers in this study. Endorsement of psychosocial causes of psychosis promotes offering of psychosocial treatment (Carter et al., 2017) and service users endorsing psychosocial causes of psychosis are more likely to effectively engage in psychological therapy (Freeman et al., 2013). Psychosocial beliefs about the causes of voices may also affect the level of voice-related distress since these beliefs influence appraisal of voices, and therefore play a role in shaping their emotional impact. The findings therefore underline the importance of considering voice-hearer perspectives on the causes of their voices when planning care.

Although beliefs about the causes of voice-hearing were comprehensively assessed using a checklist, not all possible causes were included (e.g., supernatural causes). Additionally, the role of other processes, for instance attribution bias and locus of control, were not investigated. Future studies should investigate how different beliefs about the causes of voices impact on how voices are appraised and the engagement and adherence to different types of interventions.

Overall, the findings support a trauma-informed care approach in mental health services that involves organisational recognition of trauma and its impact on wellbeing, alongside other psychological and biological factors (NHS, 2019). Assessment of beliefs about what caused voice-hearing can facilitate clinicians offering support that corresponds with voice-hearer perspectives. This may promote service user uptake and adherence, thereby addressing psychosocial intervention implementation barriers.

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Supplementary materials
Supplementary materials can be found in the online version.

Declaration of Competing Interest

None of the authors report any financial interests or potential conflict of interest.

Supplementary materials
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