Behavioural and Cognitive Psychotherapy, 2006, 34, 365–369
Printed in the United Kingdom doi:10.1017/S1352465805002675

A Longitudinal Investigation of Beliefs about Voices

Emese Csipke

Imperial College London, UK

Peter Kinderman

University of Liverpool, UK

Abstract. Beliefs about auditory hallucinations have been found to influence voice hearers' behavioural and emotional reactions to the hallucinations. It is currently unknown however, how these beliefs change over time in the absence of psychological intervention or if they remain stable, and how such changes may be related to changes in other symptoms. This study aimed to expand on previous research by exploring the beliefs of voice hearers concerning the malevolence or benevolence of voices in a longitudinal design. Forty-six individuals diagnosed with schizophrenia were assessed with the PANSS, the HAD, and an interview exploring hallucinatory experiences and beliefs about hallucinations over a period of 6 months. General psychopathology and the severity and frequency of hallucinations were found to improve. Voice hearers' beliefs about their voices, however, remained stable. Beliefs do not appear to change without a specific intervention aimed at them and may indeed serve as vulnerability factors. These findings can be interpreted to imply that psychological interventions aimed at modifying such beliefs, such as CBT, might be a necessary component of the treatment of auditory hallucinations.

Keywords: Auditory hallucinations, intrusive thoughts, beliefs, CBT, longitudinal, schizophrenia.

Introduction

An important aspect of the psychological research into auditory hallucinations is the distinction between malevolent and benevolent voices. Appraisal of auditory hallucinations contributes significantly to the behavioural and emotional responses of the person experiencing them (Chadwick and Birchwood, 1994). Chadwick and Birchwood distinguished between malevolent voices and benevolent voices. Consistent with traditional cognitive-behavioural theory, Morrison and Haddock (1997) proposed that triggering events such as intrusive thoughts or "neutral" auditory hallucinations may be appraised in light of such existing beliefs. Negative appraisals of the uncontrollability and danger of hallucinations will probably lead to feelings of threat, both physical and psychological (Morrison, 1998). The safety seeking behaviours associated with the maintenance of panic are also elicited in response to auditory hallucinations

Reprint requests to Emese Csipke, Department of Psychological Medicine, Imperial College London, Claybrook Centre, 37 Claybrook Road, London W6 8LN, UK. E-mail: e.csipke@imperial.ac.uk. An extended version is also available online in the table of contents for this issue: http://journals.cambridge.org/jid_BCP

(Nayani and David, 1996), and prevent the disconfirmation of beliefs (Morrison, 1998). If beliefs remain strong between periods of psychosis, then individuals may be more likely to interpret any future hallucinations within the framework already present.

It is currently unknown if beliefs remain stable or vary over time and the present exploratory study was designed to provide such longitudinal data concerning beliefs about voices. Two possible competing hypotheses were proposed regarding beliefs. 1. If beliefs about voices are a symptom of the voices themselves, then as the frequency or severity of voices changes, then beliefs should change with them. 2. If Morisson's cognitive-behavioural model of auditory hallucinations is correct, then beliefs would not be expected to change, regardless of changes in the auditory hallucinations themselves. This is because, according to this theory, such beliefs reinforce and strengthen themselves through safety seeking behaviours and selective attention. Furthermore, the distress associated with voices was not expected to change independently of the beliefs, since the authors believe that beliefs are what lie behind emotional and behavioural reactions to the voices, not the frequency or severity of voices.

Method

Selection criteria for entry into the study was a schizophrenia spectrum disorder, no concurrent alcohol/drug abuse or organic disorder, and hearing voices within the week prior to the first interview. Upon gaining informed consent, a total of 46 individuals were recruited into the study, 31 men (64%) and 15 women (33%). The mean age was 35.39 ($SD = 11.58$), with a range of 18 to 63 years, and the mean age of onset was 25 years ($SD = 8.33$), with a range of onset from 12 years of age to 52.

Positive and Negative Syndrome Scale (PANSS; Kay, Fiszbein and Opler, 1987). The PANSS interview is comprised of 30 items assessing positive, negative and general symptoms. Cronbach's alphas of internal reliability range are acceptable and inter-rater reliabilities are high. Training was provided, and inter-rater reliability in the present study intra-class correlations for the PANSS was $r = .94$.

Longitudinal Auditory Hallucinations Assessment Schedule (LAHAS). The LAHAS was designed specifically for the present study, combining previously validated measures (Chadwick and Birchwood, 1995; Hustig and Hafner, 1990; Junginger and Frame, 1985; Miller, O'Conner and Di Pasquale, 1993). It assesses auditory hallucinations, their nature, and patients' beliefs about their voices. Questions are participant-rated on a 0–10 scale or open ended questions. Following the guidelines of Chadwick and Birchwood (1994, 1995), participants were asked whether their voices had intentions of hurting them or harming them, also rated on 0–10 scale.

Hospital Anxiety and Depression Scale (HAD; Zigmond and Snaith, 1983). The HAD is a well known, valid and reliable, 14-item self-report scale detecting the presence of depression and anxiety, with each item being scored on a scale ranging from 1–4.

Results

Malevolence and benevolence

Participants were asked to rate on a scale of 0–10 their conviction in the belief that their voices were trying to help or hurt them. These scales were not normally distributed, scores clustered

https://doi.org/10.1017/S1352465805002675 Published online by Cambridge University Press

around the poles with two clear groups, with the groups being split at a score of 4. Therefore, in both cases, scores of 4 or more were interpreted as indicating that the voice hearer believed that the voice was helping/harming them. In this manner, 19 individuals were classified as having a malevolent voice, 8 as having a benevolent voice, 14 as having a neutral voice (they endorsed neither benevolent nor malevolent intentions), and 5 reported beliefs that the voice was both.

Twenty-seven individuals provided full, 6-month data sets. Since the sample was not large and attrition occurred, steps were taken to include all participants in the analyses. This was accomplished by using two approaches to data analysis. For some analyses, sample size was maximized by carrying forward the last assessment scores of those who dropped out into subsequent "assessments" (e.g. if an individual dropped out after Time 4, then his/her Time 4 scores were used as his/her Time 5 and Time 6 scores). It must be kept in mind that this decreases the likelihood of significant findings of change, since no change will be registered in those whose data were carried forward. Last data point carried forward method was used in those analyses in which change was detected using the smaller sample sizes in order to confirm the findings with greater statistical power.

Repeated measures analyses

Investigations of longitudinal changes in hallucinations and in the participants' beliefs about voices were conducted using repeated measures analysis of variance on all the participants still hallucinating and for whom complete data-sets over all time points in the 6 months were available ($n = 16$). No differences were found over time for the participants' beliefs about the voices' intention to help ($F(5,45) = 1.33$, $p > .05$) or harm ($F(5,45) = 1.14$, $p > .05$). In all these analyses, the last data point carried forward method was *not* employed, as initial analysis did not detect change.

Frequency, distress and severity

In contrast to beliefs, the actual experience of auditory hallucinations did change over time. The frequency of voices decreased significantly over 6 months ($F(5,50) = 13.35$, $p < .05$). This analysis was repeated using the last data point carried forward method and the finding was confirmed ($F(5,220) = 17.83$, $p < .05$). Using the last data point carried forward method only (due to the small sample size), changes in the frequency of hallucinations were compared for 8 individuals in the benevolent voices group, 19 in the malevolent voices group, and 14 in the neutral voices group. There were no differences in the patterns of changes in frequency in the three groups ($F(10,100) = .64$, $p > .05$). Repeated measures analyses of variance revealed that the severity of hallucinations (as measured by the Hallucinations item of the PANSS) decreased over the course of the study for the group as a whole ($F(5,115) = 12.26$, $p < .05$). This was repeated with the last data point carried forward method ($F(5,220) = 18.46$, $p < .05$), which also found that severity decreased significantly. As time progressed distress was not expected to lessen. To examine this, a repeated measures ANOVA analysis was run in order to evaluate any changes in distress over 6 months. Distress was not found to change overall ($F(5,50) = 1.54$, $p = .22$). Using the last data point carried forward method, the pattern of changes was found not to differ between those with malevolent, benevolent or neutral voices ($F(5,100) = .08$, $p > .05$).

https://doi.org/10.1017/S1352465805002675 Published online by Cambridge University Press

Discussion

This study addressed an important gap in the literature on auditory hallucinations – how or whether beliefs about voices change over time, without interventions aimed directly at beliefs. Changing beliefs may, however, have important treatment considerations. If distressing beliefs abate as the individual improves, symptomatic anti-psychotic medication may be seen as sufficient, and consequently time consuming, costly therapies such as CBT considered less necessary. However, if maladaptive beliefs about the voices remain strong even after improvement or in the absence of auditory hallucinations, these may then increase the risk of relapse. Risk of relapse would increase if Morrison and colleagues' theories regarding pre-existing beliefs and cognitive appraisals of voices stand true, as the authors believe they do.

One of the primary findings of the present study was that beliefs do not change, even in the face of declining psychopathological symptoms. This has both clinical and theoretical implications. Theoretically, it implies that beliefs about voices exist outside the maintenance cycle of voices and could serve as stable vulnerability factors. Changes in the frequency of auditory hallucinations were not found to affect beliefs, and they do not appear to be related to the maintenance of auditory hallucinations. Beliefs, however, may be involved in relapse. Although these beliefs appear to have no direct impact on the frequency of auditory hallucinations, negative beliefs are associated with distress, which can exacerbate hallucinations.

For participants who continued to hallucinate over the assessment period, distress did not change significantly. Voice hearers with benevolent voices consistently reported low levels of distress while voice hearers with malevolent voices consistently reported high levels of distress. Distress was not expected to change for voice hearers with benevolent voices since benevolent voices were not distressing. It could have been expected that pharmacological treatment would reduce the distress associated with malevolent voices. However, it seems as though malevolent voices that did not remit continued to be distressing, perhaps precisely because they did not remit.

The present study found that beliefs did not change, even while symptomatology improved. The conclusion could be drawn that cognitive psychotherapy may be appropriate even when individuals are non-symptomatic. Even when in remission, the individual will have a system of beliefs within which a re-occurrence of auditory hallucinations may be interpreted. An individual who believes their voice to be malevolent is likely to become distressed if the auditory hallucinations occur again. The distress may then exacerbate the symptoms and lead to a more vulnerable state in which auditory hallucinations can steadily increase. Dismantling dysfunctional thoughts and beliefs when the individual is non-symptomatic may be important.

Some limitations in the present study must be acknowledged. A limitation shared by all research that uses self-report is that it relies on the honesty and willingness of subjects to share very personal and often distressing experiences with a researcher. Therefore, these data and conclusions are only valid to the extent that the voice hearers were open and truthful about their experiences. Although recruitment lasted for 2 years from five inpatient psychiatric wards, the sample size was somewhat small. Having a larger sample size would have increased the robustness of the statistical analyses and allowed additional analyses. Small sample sizes are associated with poor power to detect significant changes and therefore type II errors. In this case, however, significant changes in symptomatology and hallucinatory experience were detected that were not associated with changes in belief. It is most parsimonious to

assume, therefore, that any possible changes in beliefs accompanying changes in hallucinatory experiences are small, and certainly not commensurate with the symptomatic changes.

This study addressed beliefs while individuals were hallucinating, and found that even in the face of lessening severity, the strength of these beliefs did not change. Further research in this area could assess the strength of beliefs about voices after individuals cease to hallucinate for some time.

Acknowledgements

The research for this paper was carried out while both authors were at the University of Manchester.

References

Chadwick, P. and Birchwood, M. (1994). The omnipotence of voices: a cognitive approach to auditory hallucinations. *British Journal of Psychiatry, 164*, 190–201.

Chadwick, P. and Birchwood, M. (1995). The omnipotence of voices: the beliefs about voices questionnaire. *British Journal of Psychiatry, 166*, 773–776.

Hustig, H. H. and Hafner, R. J. (1990). Persistent auditory hallucinations and relationship to delusions and mood. *Journal of Nervous and Mental Disease, 178*, 264–267.

Junginger, J. and Frame, C. L. (1985). Self-report of the frequency and phenomenology of verbal hallucinations. *Journal of Nervous and Mental Disease, 173*, 149–155.

Kay, S. R., Fiszbein, A. and Opler, L. A. (1987). The positive and negative syndrome scale (PANSS) for schizophrenia. *Schizophrenia Bulletin, 13*, 261–276.

Miller, L. J., O'Connor, E. and Di Pasquale, T. (1993). Patients' attitudes toward hallucination. *American Journal of Psychiatry, 150*, 584–589.

Morrison, A. P. (1998). A cognitive analysis of the maintenance of auditory hallucinations: are the voices to schizophrenia what bodily sensations are to panic? *Behavioural and Cognitive Psychotherapy, 26*, 289–302.

Morrison, A. P. and Haddock, G. (1997). Cognitive factors in source monitoring and auditory hallucinations. *Psychological Medicine, 27*, 669–679.

Nayani, T. H. and David, A. S. (1996). The auditory hallucination: a phenomenological survey. *Psychological Medicine, 26*, 177–189.

Zigmond, A. S. and Snaith, R. P. (1983). The Hospital and Anxiety Depression Scale. *Acta Psychiatrica Scandinavica, 67*, 361–370.