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Audiotape Therapy for Persistent Auditory Hallucinations

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We report a case of a man with recurrent depression and persistent second-person auditory hallucinations telling him to kill himself. Using an audiotape cassette and headphones the duration of the hallucinations decreased significantly. Helpfulness of the audiotape continued at 15 months follow-up

Auditory hallucinations are a source of considerable discomfort and are present in a variety of psychiatric patients. They have been associated with increased suicidal risk, at least among schizophrenic patients (Falloon & Talbot, 1981). Neuroleptic medication is the most common treatment, but the hallucinations persist in some patients. Patients try to decrease the voices by: (a) a change in posture (lie down, walk, run), activity (work, leisure such as music or television), interpersonal contact (withdrawing or engaging), and medication (increasing it or taking illicit drugs or alcohol); (b) attending to the task at hand; and (c) altering physiological arousal by such techniques as relaxation, reducing sensory input by the use of earplugs and closing eyes, or increasing arousal with exercise (pacing) and/or loud music to drown out the voices (Falloon & Talbot, 1981).

Psychological treatments of auditory hallucinations in schizophrenic patients have included occluding one ear and sound/noise delivered via headphones. In case studies auditory hallucinations decreased markedly when an ear plug was inserted in one ear (Birchwood, 1986; James, 1983; Done *et al*, 1986; Morley, 1987). Frequency and clarity of auditory hallucinations reduced with the use of headphones to deliver varying types of sound including music (Feder, 1982; Morley, 1987), white noise (Fonagy & Slade, 1982) and music, speech and white noise (Margo, 1981). The efficacy of this method might be related to the meaning of the sound for the patient (Margo, 1981).

In the literature we could find no studies of psychological treatment of depressive hallucinations. We report an encouraging case study of audiotherapy in a man who had recurrent depressive psychosis and troublesome second person auditory hallucinations commanding him to kill himself.

Case report

A retired 60-year-old security guard had been a day- and in-patient for over two years because of repeated depression with a serious suicidal risk. He had a 40-year history of documented recurrent depression with five near-fatal suicidal attempts, three of which had been in the past two years. The diagnosis was made using ICD-9 (World Health Organization, 1978) criteria. During his latest two-year admission he had, at intervals of six to eight weeks, episodic depressed moods with loss of appetite, anhedonia and low self-esteem. His suicidal thoughts were accompanied by frequent second-person auditory hallucinations – an unknown male voice immediately behind him telling him to hang himself – which occurred in clear consciousness. Computerised tomography, several electroencephalograms, and haematological profiles were normal. An extended severe depression led to urgent admission and six sessions of electroconvulsive therapy (ECT) that helped transiently.

Further depressive episodes recurred despite trials of imipramine, amitriptyline, phenelzine, chlorpromazine and lithium. Suspicion of psychomotor seizures from the patient's report of macropsia and headache concurrent with the hallucinations led to an unsuccessful trial of carbamazepine (200 mg daily). His medication at the time of psychological treatment was carbamazepine (200 mg daily; serum level 5.0 mg/l), lithium (400 mg nocte; serum level 0.9 mmol/l), chlorpromazine (200 mg daily), indomethacin 75 (4 mg) and paracetamol (p.r.n.) for headache.

On his own inspiration the patient bought a portable audiotape cassette and made a tape to play whenever he heard the voice (he had seen patients being treated for obsessive thoughts in such a manner). His initial tape was of his own voice shouting back at the hallucinated one but this did not help. He then decided instead to record and play pleasant memories of his family, work and holidays. He told staff that this tape reduced the duration of his hallucination and made him feel much better.

A case study was designed to test this impression. Each day was divided into alternating six-hour periods: A = switch the tape on if hallucinations come on; and B = don't use the tape at all (the earphones were worn during both periods when the voice occurred). The patient was asked to record the duration and intensity of auditory hallucinations during all periods. Statistical analysis of the results was done using Student's *t*-test. To check the validity of his records he was asked to produce them periodically and was questioned on their contents, and they were compared with nursing and medical observations.

Over 35 days the patients had 25 hallucinatory bouts in three clusters, each lasting up to three days. He used the tape in nine of the bouts and did not, in 14. Twice he used the tape in error during a B period when he should not have;

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these results were included in the calculations for tape use (period A). His record keeping was good and consistent with nursing reports of his ward behaviour. The hallucinatory episodes lasted for an average of 4.4 min while listening to the audiotape and 22.2 min when not listening to it ($P<0.005$). When a bout began it took an average of 1.6 min for him to put on the headphones and start listening to the tape after which the hallucinations continued for a mean of 2.8 min. The mean time spent listening to the tape was 15.3 min per bout, of which a mean of 11 min followed the end of a bout. The tape greatly reduced the duration but not the frequency of the voice. Fifteen months later the patient was continuing to use his tape, saying that it was the only way to make the voice go away. Regular depressive periods continued until his death (myocardial infarct) 18 months after audiotape therapy had begun.

Discussion

During 35 days of audiotape therapy the hallucinatory bouts reduced markedly in duration but not in frequency, and nursing records reported less motor agitation and talk of suicidal intent. The patient reported by Morley (1987) also showed consistent improvement on self-report and behaviour.

Our patient had 40 years of recurrent depression which had become more severe with greater suicidal risk over the previous two years, requiring continuous day- or in-patient care. He had many treatments including ECT, three antidepressant drugs, phenothiazines and lithium in several combinations. These helped his depressions somewhat, but he remained extremely distressed by the voice commanding him to commit suicide. This drove him to seek a way of reducing the hallucinations. In a schizophrenic sample 13% would try to stop the auditory hallucinations on their own initiative, using stimulating music or loud noise and with a good or fair outcome (Falloon & Talbot, 1981). The present case study differs from previous studies both in the diagnosis (depressive disorder v. schizophrenia) and in the phenomenology of hallucinations (second person intermittent auditory v. third person continuous in most others). The decreased duration of the hallucinations in our patient resembles other findings of short-term improvement from listening to sounds that were meaningful for the patient (Margo *et al*, 1981). The latter study is unique in studying seven patients in nine experimental conditions, controlling for content and duration of auditory input. It concluded that external auditory stimulation was helpful if it had structure, meaning and demanded attention. Slade's (1976) idea that hallucinations are influenced by both internal and external stimulation is also supported by Feder's (1982) report of a patient who showed improvement by listening to a radio with a single ear plug; another patient was helped markedly by using an earplug in one ear but only helped marginally by music through headphones.

The previous studies and the present one underline the possibilities of treating auditory hallucinations by altering external stimulation; audiotape therapy may be helpful. Such a treatment needs to be investigated across a range of diagnoses.

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