

A cognitive behavioural model of tinnitus distress

There has been formal recognition of the importance of psychological factors in tinnitus distress for over three decades. The psychological approach to tinnitus posits that the condition becomes problematic when it acquires an emotive significance through cognitive processes.

The principle treatment efforts are directed at reducing or removing the cognitive (and behavioral) obstacles to habituation.

In this presentation a cognitive behavioural model of tinnitus suffering is presented. The central role of cognition is highlighted. This paper suggests likely connections between the appraisal of tinnitus and normal human information processing. These normal processes can lead to errors in calculation and appraisal. It is proposed that stress arousal and distress are driven by a negative cognitive appraisal of tinnitus; usually the appraisal is one of threat or loss. Common themes are concerns about the loss of the peace and quiet, threats to quality of life, ability to work, sleep or relax, and threats to health and sanity. The model suggests that this in turn leads to further cognitive changes that provoke distortions in thinking so worsening the arousal and distress. Stress arousal also leads to selective attention and monitoring so maintaining the detection of tinnitus. Selective attention maintains a focus on tinnitus to the relative exclusion of other events in the person's life and this can maintain the negative cognitive appraisal of threat. It is suggested here that selective attention also distorts the perception of tinnitus; this further provokes the negative appraisal.

The model proposes that negative appraisals of tinnitus lead to changes in behaviour. Characteristically people seek to avoid tinnitus through the use of sound to obscure or partially obscure the tinnitus and distraction from the tinnitus leading to behavioural excesses, e.g. keeping constantly busy. Seemingly diametrically opposite behaviour patterns can serve the same functions of avoidance and escape. These changes are designed to protect the person from the perceived threat. When the appraisal of tinnitus involves negative ideas of threat or loss that are based on cognitive distortions then the changes in behaviour serve to maintain or worsen the negative thoughts.

The types of appraisals that a person makes is influenced his or her personality characteristics. Their thoughts about tinnitus are influenced by the way they think about life in general.

This paper proposes a coherent cognitive behavioral model of tinnitus distress that is more in keeping with contemporary psychological theories of clinical problems (particularly that of insomnia) and which postulates a number of behavioral processes that maintain distress. This model represents an improvement on previous ones in that it provides testable hypotheses to guide future research to unravel the complex mechanisms underpinning tinnitus distress. It is also well suited to define individual symptomatology and to provide a framework for effective cognitive behavior therapy. The evidence in support of the components of this psychological perspective is critically reviewed. The therapeutic approach that is linked to this model is cognitive behaviour therapy (CBT); CBT is the therapeutic approach to tinnitus management for which there is the strongest evidence regarding tinnitus management supports a CBT approach.