

Role of psychology in occipital nerve stimulation treatment for headache

Author: Dr Shoma Khan, Counselling Psychologist; Ms Susie Lagrata, Clinical Nurse Specialist; Dr Sarah Miller, Consultant Neurologist; Dr Manjit Matharu, Consultant Neurologist
Headache Group ONS Team, National Hospital for Neurology and Neurosurgery, Queen Square London UK
Email: Shoma.Khan@nhs.net

Acknowledgements: Headache Group ONS Team

Background

Occipital nerve stimulation (ONS) may provide an effective treatment to patients with intractable chronic migraine and medically refractory chronic cluster headaches by improving headache attack frequency, severity and duration, disability and patient's quality of life. In the UK the National Health Service Commissioning Board (NHS England) provides guidelines to specialised pain centres offering ONS treatment. Guidance suggests patient selection and treatment be done by a multidisciplinary team (MDT) including a headache specialist, neurosurgeon, pain management psychologist or psychiatrist, and a headache nurse specialist or neuromodulation nurse practitioner. Pain management psychology is well established within chronic pain services treating various pain conditions and implementing neuromodulation. The role of psychology in headache management is less established but we can learn from chronic pain management psychology to develop psychology in ONS treatment.

Aims

- The contribution of psychology at assessment.
- Value of self-management principles pre-ONS.
- Initial findings from a psychology-led pre-implant preparation group programme.

Method

1. Literature reviews; psychological factors and patient suitability for neuromodulation, evidence base for pain management programmes (PMPs), and quality of life factors associated with ONS outcomes, consent and patient expectations.
2. Patient and clinician reflections from assessment and pre-implant preparation or HOP (headache ONS pain management programme).
3. Snapshot of quality of life quantitative data collected from ONS patients.

Results

Literature reviews: multidisciplinary team assessments provide information of psychiatric comorbidities, patient education content including headache education and stress management with relaxation can be helpful, active self-management helps patients apply skills to real-life situations, limited evidence for efficacy of CBT for headache, mindfulness can be helpful, literature for self-management supports learning, and chronic pain management principles are relevant to headache patients.

Qualitative themes from psychology assessment and HOP; attention bias towards pain relief, fear/avoidance of pain and pain provoking activities, communication challenges, and challenges in identifying personal goals.

Initial snapshot of data is currently being analysed for descriptive statistics. Sample sizes; n=18 patients seen before and on completion of HOP preparation, and n=6 patients at pre and post ONS implant.

Discussion

The literature exploring psychology in chronic pain treatment, including neuromodulation studies, can shape the role of psychology in ONS treatment. The research shows patients can benefit from attending PMPs using CBT (cognitive behavioural therapy), ACT (acceptance commitment therapy) and Mindfulness models.

The aim of these PMPs is to help patients live well in the presence of pain as patients understand ONS is not a cure. ONS psychological assessment and the HOP group facilitates exploring expectations, normalising distress, developing self-awareness, practicing stress management skills, peer support, and encouraging behavioural change towards goals. The snapshot of data collected from outcome measures show an improvement in quality of life factors not only after ONS implant, but also prior to implant and after HOP facilitated by psychologists.

Conclusion

The role of psychology in headache management goes beyond “listening to and comforting distress”. The role is to support patients to navigate their lives alongside headache using independent self-management skills to optimise ONS benefits.