

Clinical Psychology and Voice Disorders

Voice disorders are a group of conditions affecting how the voice sounds and feels, featuring parameters of dysphonia like roughness, breathiness, asthenia, and strain¹. The psychological distress associated with experiencing a voice disorder is increasingly recognised², with recent consensus statements underlining the importance of psychological factors in the development, maintenance, and treatment of voice problems^{3,4}. However, the psychological needs of voice patients are not always well-understood and routine access to psychological input is often limited within multidisciplinary voice care services⁵.

This presentation presents the results of a recently published meta-analytic review of psychological features in voice disorders, quantifying and formulating psychological differences between those with and without voice disorders. No work to-date has systematically synthesized existing studies in this way. In doing so, the review underlines the need for more psychologically informed descriptions of voice disorders, advocating for greater clinical psychology input within voice care services.

A systematic search of PubMed, CINAHL, Ovid (PsycInfo, MEDLINE, Embase) and Web of Science databases was conducted (September 2022). Voice disorders were defined and classified as functional or organic in accordance with current nosology. To be eligible for inclusion, studies were expected to assess psychological characteristics across samples with and without voice disorders. To be eligible for meta-analysis, studies had to report mean and standard deviation values for all psychological measures completed all groups. Epidemiological and correlational studies were not eligible for inclusion if these were the only data reported. The study selection process filtered 20,095 initial hits through to 120 articles for full screening, resulting in 39 studies (N participants=4740) included in the review. The quality of studies was formally assessed using the Newcastle-Ottawa Scale. The psychological characteristics investigated were depression symptoms (n studies=29), state anxiety symptoms (n studies=24), trait anxiety (n studies=15), health anxiety symptoms (n studies=7), neuroticism traits (n studies=10), introversion-extraversion traits (n studies=12), and other relevant characteristics such as difficult life experiences and temperament (n studies=27). Effect size estimates of differences between groups were calculated as standardised mean difference (SMD).

Analysis revealed consistent differences in psychological characteristics between those with and without voice disorders. Markedly higher self-reported symptoms of depression (SMD=0.50), state anxiety (SMD=0.58), and health anxiety (SMD=0.57) were observed in groups with voice disorders in comparison to those without. These differences between groups were supplemented by trait-based differences, with those with voice disorders

reporting significantly more pronounced traits of neuroticism (SMD=0.47) and trait anxiety (SMD=0.52).

Higher rates of self-reported difficult life experiences and social anxiety symptoms were also seen. However, no significant differences in introversion-extraversion were observed between groups.

In contrast to significant differences across psychological characteristics between those with and without voice disorders, relatively little consistent evidence of quantitative or qualitative differences between functional and organic voice disorder groups were observed. Indeed, marginally significant differences in trait anxiety were observed between functional and organic groups (SMD=0.51, $p=.045$) but otherwise no discernible patterns of psychological difference were identified. This was the case for comparisons between functional and organic groups, as well across different organic groups (such as vocal nodules versus vocal fold paralysis).

The findings of this review demonstrate the psychological impact of voice disorders. Findings indicate that having a voice disorder may incur feelings of depression and anxiety which, underscored by trait and life experiences, may lead to heightened psychological distress and affected wellbeing. There are several clinical implications relevant to the field of voice based on this. In showing the psychological impact of voice disorders, irrespective of type of diagnosis, the findings may initiate a movement away from 'functional', 'organic', and 'psychogenic' designations of voice problems⁶. Moreover, the findings indicate marked psychological needs within this patient population which should be identified using psychological screening, helping clinicians and patients characterise psychological factors contributing to voice problems. By extension, clinical psychologists should be embedded within voice care teams to provide case consultation, staff supervision, and in some cases work with patients directly. Taken together, the findings therefore advocate for the role of clinical psychology in identifying, formulating, and addressing psychological factors in voice disorders.

References

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