

10th Oxford Dysfluency Conference, ODC 2014, 17 - 20 July, 2014, Oxford, United Kingdom

Information processing in stuttering

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Abstract

Adults who stutter are at risk of developing a range of psychological issues, and those issues have been implicated in failed speech rehabilitation. Social anxiety disorder (SAD) is the most prevalent condition associated with stuttering. SAD has been prominent in psychological research in an effort to understand the cause, maintenance and management of the condition. To improve the clinical management of stuttering it is critical to take account of cognitive theories of SAD to further understand the mechanisms of anxiety onset and maintenance.

Social anxiety disorder involves excessive, irrational, and debilitating fear of being humiliated and embarrassed in social situations. Severe cases can result in high levels of avoidance which can lead to social isolation and failure to participate in many normal occupational, social and interpersonal activities. However, not all situations can be avoided. A person with SAD is likely to encounter anxiety-inducing situations on many occasions in the absence of the feared event, and yet their fears persist. Hence, avoidance alone cannot account for this persistence of anxiety. It is increasingly apparent that expectancies of social harm and fear of negative social evaluation are central to the nature of anxiety associated with stuttering.

Cognitive theorists suggest that information processing biases are involved in the maintenance of fear and anxiety associated with SAD [Clark, D. M., & Wells, A. (1995). A cognitive model of social phobia. In R. G. Heimberg, M. R. Liebowitz, D. A. Hope, & F. R. Schneier. (Eds.) *Social Phobia: Diagnosis, Assessment and Treatment*. (pp.69-93). New York: The Guildford Press; Rapee, R. M., & Heimberg, R. G. (1997). A cognitive-behavioral model of anxiety in social phobia. *Behaviour Research and Therapy*, 35, 741-756]. These cognitive processes include (1) self-focused attention, (2) reduced processing of external social cues (3) intrusive mental imagery, (4) rumination and (5) safety behaviors. Routine clinical psychology interventions to reduce anxiety in SAD involve identifying and eliminating information processing biases and client safety behaviors. However, a recent publication has shown that during routine clinical

treatment of stuttering, speech-language pathologists commonly recommend that clients engage in a range of tasks that might function as safety behaviors. In other words, they may perpetuate client social anxiety.

The effects of information processing biases have been well documented in SAD and evidence is emerging of such biases in adults who stutter. To improve clinical outcomes for people who stutter, there is a critical need for this research to continue, in particular, to explore the extent to which people who stutter engage in information processing biases that are well known to maintain anxiety in SAD. The application of models of SAD to stuttering research is crucial to this line of research.

Keywords: Stuttering; Social anxiety disorder; Information processing; Attentional biases

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