



Topic Brief: Temporomandibular Joint Dysfunction and Stuttering

Date: 11/8/2022

Nomination Number: 1018

Purpose: This document summarizes the information addressing a nomination submitted on October 12, 2022, via email. This information was used to inform the Evidence-based Practice Center (EPC) Program decisions about whether to produce an evidence report on the topic, and if so, what type of evidence report would be most suitable.

Issue: The nominator of this topic requested that research be done to understand whether temporomandibular joint (TMJ) dysfunction impacts stuttering.

Findings: The EPC program synthesizes available research and does not conduct primary research. Therefore, the program will not consider this nomination further.

Background

The temporomandibular joint, or TMJ, connects the jawbone to the skull, and moves in a hinge-like motion. Symptoms of TMJ disorders may include pain or tenderness of the jaw, or in one or both of the TMJs; aching pain in and around the ear; difficulty chewing or pain while chewing; aching pain in the face; locking of the joint, making it difficult to open or close the mouth; and clicking sounds or grating sensations upon opening the mouth. The cause of TMJ disorders may be due to a combination of factors, including genetics, arthritis, and jaw injury. The resulting pain is temporary in most cases, and can be alleviated via self-care or non-surgical intervention.¹ Surgery for TMJ disorders may be conducted as a last resort after additional measures have failed.

Stuttering, also referred to as stammering or disfluent speech, is a speech disorder that is characterized by the repetitions of sounds, syllables, or words; prolongation of sounds; and interruption of segments of speech. This disorder, which impacts approximately 3 million Americans, is generally grouped into two types, termed developmental and neurogenic. Developmental stuttering occurs in young children as they are learning speech and language, and is the most common form of stuttering, while neurogenic stuttering may occur after a stroke, head trauma, or other brain injury. While there are no cures for stuttering, a variety of treatments exist, including therapy for children, stuttering therapy for teens and adults, off-label drug therapy, electronic devices, and self-help meetings.²

While there could potentially be a link between TMJ disorders and stuttering, our team was unable to find existing studies connecting the two conditions.

Assessment Methods

We assessed nomination for priority for a systematic review or other AHRQ EHC report with a hierarchical process using established selection criteria. Assessment of each criteria determined the need to evaluate the next one.

1. Determine the *appropriateness* of the nominated topic for inclusion in the EHC program.
2. Establish the overall *importance* of a potential topic as representing a health or healthcare issue in the United States.
3. Determine the *desirability of new evidence review* by examining whether a new systematic review or other AHRQ product would be duplicative.
4. Assess the *potential impact* a new systematic review or other AHRQ product.
5. Assess whether the *current state of the evidence* allows for a systematic review or other AHRQ product (feasibility).
6. Determine the *potential value* of a new systematic review or other AHRQ product.

Related Resources

We identified additional information in the course of our assessment that might be useful to the nominator.

- The National Institute on Deafness and Communication Disorders funds research in this topic area. For more information about opportunities to engage in research: <https://www.nidcd.nih.gov/research/clinical-studies>.
- The National Institute on Deafness and Communication Disorders has an informational page about stuttering and provides information about resources and relevant organizations. These include:
 - The [National Stuttering Association](#) is a non-profit organization that offers local support groups, education, advocacy, and research. They also solicit submissions for research ideas that the nominator may wish to utilize: [Research Recruitment Application - National Stuttering Association \(westutter.org\)](#)
- [International Stuttering Awareness Day](#) is an online conference that is held annually during the month of October. The event exists to carry on a tradition of education by offering a conference-type experience in the form of personal stories, videos, creative expression, therapy ideas, and research, along with ongoing discussions about stuttering.”

References

1. Mayo Clinic Staff. TMJ disorders: Symptoms & causes. <https://www.mayoclinic.org/diseases-conditions/tmj/symptoms-causes/syc-20350941>. Accessed on 11/17/2022.
2. National Institute on Deafness and Other Communication Disorders. Stuttering. 2016. <https://www.nidcd.nih.gov/health/stuttering>. Accessed on 11/17/2022.

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Conflict of Interest: None of the investigators have any affiliations or financial involvement that conflicts with the material presented in this report.

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