Stutter Articulation in Brass Musicians

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Introduction/Background Information

Stutter articulation has been researched by primarily musicians and speech language pathologists (SLPs), with research by SLPs consisting of case studies of those who have speech stutters as well as experience stutter articulation in musical instruments, such as research by Silverman et al. (1988), Meltzer (1992), and Packman (1999), citing links to freezing facial muscles and environmental factors like competition. Gonzales (2021) conducted a survey proposing links to the Valsalva maneuver, anticipation, and environmental stressors. Musicians such as Akters (2016) and Cochran (2004) have utilized online surveys consisting of horn professors and professional players. Akters found most had the issue for less than a year, in any range of notes, in any kind of musical entrance as well as any quiet entrances, experienced in their undergraduate years and beyond. Cochran (2004) cited the Valsalva maneuver as a possible contributor. Most literature consists of narratives (Gaboury-Sly, 2004) and warm-up recommendations (Garcia, 2009), or short analyses of case studies as mentioned. Such literature may suggest solutions but does not seek to define or explore stutter articulation. Existing surveys do not conduct statistical analyses or aim to establish significance. To fill these gaps, this research seeks to conduct thematic analysis utilizing qualitative data to better define and explore the roots of stutter articulation. This research will explore the conditions under which stutter articulation is prevalent, and describe the anatomy and psychology related to the phenomenon.

Methods

Participants of this study can be characterized as:

- Five brass musicians.
- Two trumpet players, three trombone players.
- Age twenty to twenty-seven.
- Undergraduate/graduate college students.
- Self-identified as having stutter articulation (one was diagnosed with a fluency disorder).

In this study, stutter articulation was defined as a lack of a clean attack during the starting note and sound, or stutter. Although ongoing, this study seeks to define themes from the transcripts to better understand stutter articulation's physiological, anatomical, and psychological aspects.

To begin research:

- Emails were sent to a list of brass instructors in the U.S at doctoral universities to refer students with stutter articulation, defining how it is described in this study.
- Those who were interested in participation contacted a research team member and received a consent form and interview time (this research member, as well as the member conducting the interview, was not the participant's applied instructor).
- Semi-structured interviews were conducted, questioning stutter articulation experience, what the mind, body/anatomy is doing as it happens, successful and unsuccessful strategies, and impact on practice and performance.
- Zoom was used to record and transcribe interviews, with files stored and password protected on OneDrive. Participants were than emailed transcripts for member checking (adding context, confirming accuracy, suggesting edits).
- Although still in progress, data analysis includes thematic analysis of transcripts to clarify themes surrounding stutter articulation.

Preliminary Results

The first cycle of interview analysis portrayed some common themes, including:

- “Stutter” in describing the sensation of stutter articulation.
- “Freeze/can’t start note” and “tension in throat” in describing the two main issues participants experienced.
- “First note/entrance” in describing that much difficulty occurs when starting the first note of a phrase, or a note after a long rest.
- “Anxiety/worry.”
  - Subthemes in this area included “anticipation” and“analysis paralysis.”
- “No reference point” as an issue when performing solos, excerpts, or otherwise alone.
- “High stakes performance” in describing the phenomenon in exposing environments such as with peers, in solos, and in studio class.
- “Problem started after years of playing,” suggesting the phenomenon does not exist at the beginning of the musical career.

Themes also emerged in describing improvement of the condition of stutter articulation:

- “Cognitive reframing/mindset.”
- “Reference point rhythmic context,” as participants described the aid of metronomes, conductors and accompanists.

Although preliminary, these results help to better define and explore stutter articulation through thematic analysis utilizing qualitative data. After the conclusion of this project, further research may include content analysis into the differing analyses of stutter articulation by SLPs and musicians.

Preliminary Themes

Stutter	Freeze/Can't start note	Tension in throat	First note/entrance	Anxiety/worry	No reference point	High stakes performance	Problem started after years of playing
Person 1		Person 1	Person 1	Person 1	Person 1	Person 1	
Person 2	Person 2	Person 2	Person 2	Person 2	Person 2		Person 2
Person 3		Person 3		Person 3	Person 3	Person 3	Person 3
Person 4	Person 4		Person 4	Person 4		Person 4	
Person 5	Person 5		Person 5	Person 5	Person 5		Person 5
Condition improves							
Cognitive reframing or mindset	**Reference point**						
Person 1	Person 1						
	Person 2						
	Person 3						
	Person 4						
	Person 5						

Above is a table outlining preliminary themes found, and which participants’ statements they were derived from.

Discussion

Although analysis is ongoing, preliminary themes had some ties to existing literature.

- Gonzales (2021) and Cochran (2004) proposed environmental stressors as a link to stutter articulation, which may relate to the initial themes of “high stakes performance” found in this research.
- Akters (2016) and Cochran (2004) found in their survey that the condition seemed to arise after years of playing, also found as a theme in this study.
- Akters recommends utilizing musical cues; in this study one of the themes on improvement included “reference point rhythmic context.”
- In their personal narratives, Stevens (2019) and Gaboury-Sly (2004) also noted “anxiety” and “analysis paralysis” as contributors.

Preliminary themes found help better define and explore stutter articulation as a phenomenon. Based on preliminary results, stutter articulation can be described as a stutter-like sensation creating a lack of a clean attack on the initial note. Themes on primary issues included tension in the throat, and a ‘freeze.' The phenomenon occurs later on in playing, and conditions in which the phenomenon seems more prevalent include high stakes performance, intensified by anxiety, analysis paralysis, anticipation, and a lack of reference points. Themes on improvement pointed to cognitive reframing and/or reference points for playing.

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References: