Rethinking Cleft and Craniofacial Disorders Instruction:

THE **HOW**

THE **WHEN**

THE **WHY**

MICHIGAN MEDICINE
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About the Presenter

EDUCATION

B.A. in Speech and Hearing Sciences from **Indiana University**

M.S. in Speech-Language Pathology from **Purdue University**

WORK

Clinical Fellowship at the Center for Craniofacial Disorders ATL, GA

Pediatric private practice

Driscoll Children's Hospital South Texas

UM Craniofacial Anomalies Program

VOLUNTEER

Operation Smile

International Children's Surgical Foundation

Speech Therapy Cambodia

Smiles International

Smile Train

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Objectives

WHY

do we need to rethink instruction?

WHEN

should instruction occur?

HOW

should cleft palate instruction be restructured?

Note: This will **not** be a comprehensive course on assessment and treatment of cleft palate speech disorders

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THE PROBLEM

"THE WHY"

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The Challenges

School SLPs are managing very high caseloads with a wide scope of populations.

Resonance disorders are comparably low-incidence.

Table 2: Areas of Intervention

AREA OF INTERVENTION	% OF SLPS WHO REGULARLY SERVE STUDENTS IN THIS AREA	MEAN NUMBER OF STUDENTS REGULARLY SERVED
Acquired brain injury (ABI)	13.7	1.6
Auditory processing disorder (APD)	28.6	4.4
Augmentative and alternative communication (AAC)	71.2	5.7
Autism spectrum disorder (ASD)	93.7	11.4
Childhood apraxia of speech (CAS)	59.9	2.8
Cognitive communication disorders	47.5	9.6
Dysphagia (swallowing/feeding)	8.1	2.6
Fluency disorder	71.2	2.5
Gender affirming voice	0.9	6.5**
Hearing loss	41.6	2.6
Language disorders: pragmatics/social communication	88.8	13.2
Language disorders: semantics, morphology, syntax	93.4	21.6
Reading and writing (literacy)	27.5	12.9
Selective mutism	20.1	1.3
Speech sound disorders	91.8	19.4
Voice or resonance disorders	**13.8**	**1.6**

ASHA SCHOOLS SURVEY 2022

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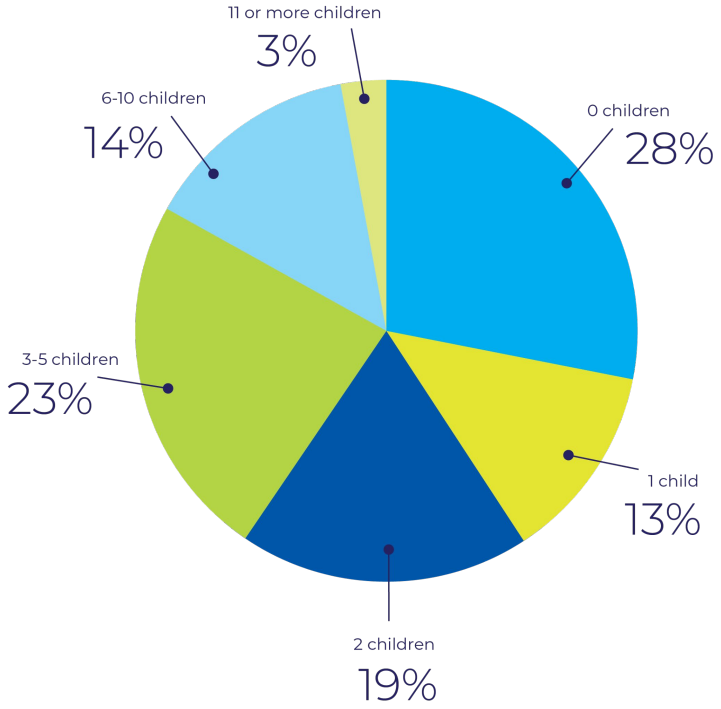
The Challenges

Although cleft speech disorders are low incidence, school-based SLPs are likely to encounter a child on their caseload at least once during their career.

According to a survey conducted by Bedwineck et al. (2010), **72% of SLPs encountered a child with CL + P**.



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What Previous Research has Shown

Pannbacker (2004) expressed concerns that quality of care given by local SLPs to children with VPD and cleft palate is variable due to insufficient knowledge and infrequency of children on their caseloads

Many SLPs are “unfamiliar” with basic information regarding children with cleft and craniofacial disorders (Kuehn and Henne, 2003)

82% of SLPs reported not feeling comfortable with treating with children with cleft palate (Bedwineck et al., 2010)

The Dis connect

While SLPs in hospitals and/or craniofacial teams tend be the experts on this topic, it is the school and community SLPs who shoulder the burden of being the primary service providers

The structure and culture of SLPs in educational versus medical settings vary greatly. Because of this, both SLPs may be approaching this problem differently.

If the community SLP feels that the power to impact a child's speech is solely based on a structure or medical issue (such as a dental anomaly or need for surgical intervention) then the decision may be to delay or discontinue speech services.

Grames, L. M. (2004). Implementing treatment recommendations: Role of the craniofacial team speech-language pathologist in working with the client's speech-language pathologist. *Perspectives on Speech Science and Orofacial Disorders*, *14*(2), 6-9.

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By focusing on the minimal number of individuals who are impacted by a disorder, it can de-emphasize the nature of the problem by those impacted.

Because cleft is low incidence, it may be perceived as a “small” problem, however, it is by no means a small problem for that individual.

Yairi, E., & Ambrose, N. G. (2005). Early childhood stuttering for clinicians by clinicians: Pro Ed.
Sischo, L., Wilson-Genderson, M., & Broder, H. (2017). Quality-of-life in children with orofacial clefts and caregiver well-being. Journal of dental research, 96(13), 1474-1481.

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For those with a cleft palate, speech is a big deal

50%-75% require speech and language treatment

25%-38% require treatment for a resonance disorder (which could include surgical or prosthodontic management)

95%-97% have middle ear disease/conductive hearing loss starting in infancy, which can impact speech and language development

Grames, L. M. (2008). Advancing into the 21st century: Care for individuals with cleft palate or craniofacial differences. The ASHA Leader, 13(6), 10-13.

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The Impact of Speech and Hypernasality on Relationships

Watterson et al. (2013):

Increased nasality resulted in decreased social acceptance by peers.

This was true for patients were considered even mildly hypernasal

Nyberg and Havstam (2016):

minor articulation errors were notable by peers

nasality was only noted until it was remarkable

Lee et al. (2017):

reduced speech intelligibility was related to perceptions by peers of “sickness”, “having no friends” and “looking ugly”

Bettens et al. (2020):

decrease in social acceptance for children with mild-to-moderate hypernasality

younger children showed more negative attitudes toward their peers than older children

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It can be surmised that speech therapy in which the individuals makes little progress can be both frustrating for the individual and the SLP.

There is a risk of parent and patient developing the sense that speech therapy is ineffectual. All parties involved may develop a sense of powerlessness to change the situation.

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When is the right time for instruction?

1. Within the university setting and academic curriculum

2. As the SLP encounters these children on their caseload

CLEFT INSTRUCTION

WITHIN

ACADEMIC CURRICULUM

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Vallino et al. (2008)

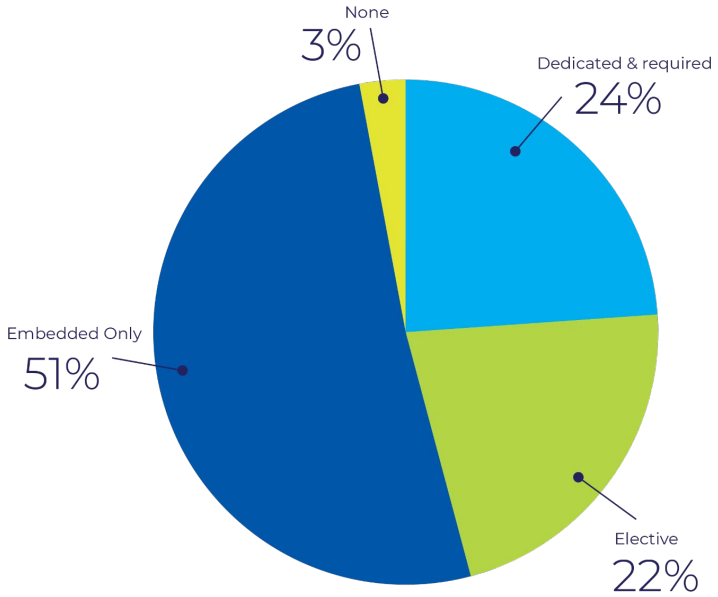
TOTAL RESPONSE RATE

- ⅔ of responding grad programs offered an exclusive course in 2006
  - **For 53%** of these programs, the course was required
- ⅓ embedded curriculum within other courses
- Therefore, ⅓ of responding programs total offered required and exclusive course in cleft palate and craniofacial disorders
- **88%** of students did not gain any practical clinical experience with the cleft palate population

Mills and Hardin-Jones (2019)

- **¼** of responding programs had a dedicated and required course of cleft/craniofacial disorders
- **22%** of programs that offered a course, offered the course as an elective
- **51%** of programs embedded cleft and craniofacial content into other coursework

FIGURE 1. Percentage of programs offering dedicated/required and elective coursework in cleft palate/craniofacial anomalies



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Mason et al. (2019)

- Study compared academic curriculum for two low-incidence communication disorders (fluency and cleft palate speech disorders)
- Compared to fluency disorders, content for craniofacial disorders is taught less often in the graduate curriculum and is taught more frequently by a non-expert.
- Overall, only **19%** of courses were taught by an expert in cleft
- The percentage of universities offering graduate content in cleft palate/craniofacial anomalies was static between 2008 and 2019 but the number dedicated and required courses has decreased. Embedded content and elective courses have notably increased.
- Between 1990 and 2008, there was a 30% decline in cleft coursework at the graduate level. The above study found that currently, only a quarter of grad programs had a dedicated course.

Mason et al. (2019)

FIGURE 2. Breakdown and comparison of course content and faculty expertise for fluency disorders and cleft/craniofacial anomalies.

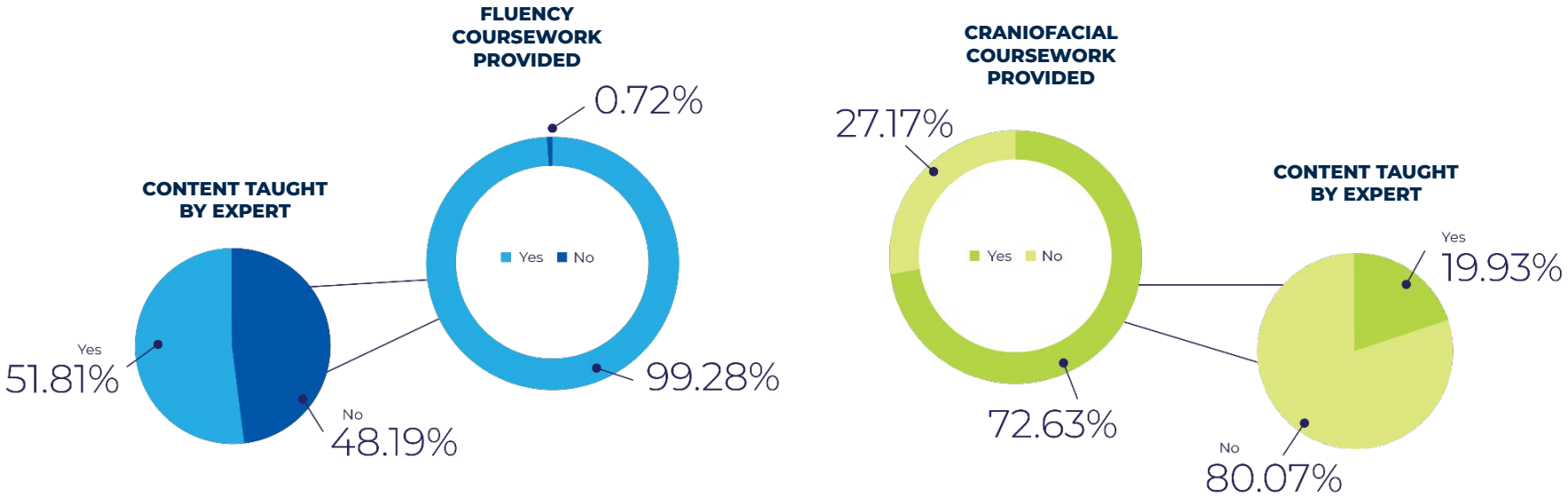

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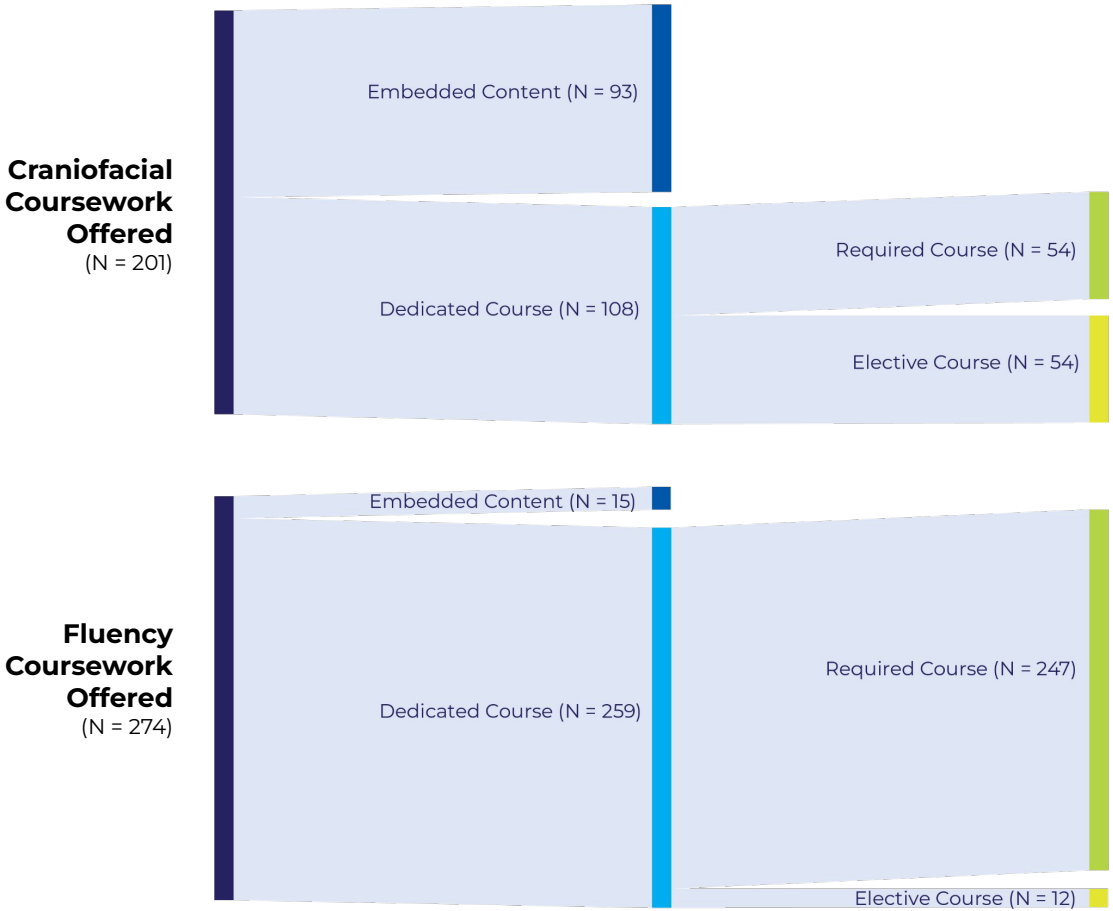
FIGURE 3. Sankey diagram showing the total number of fluency and craniofacial courses offered and the type of course offerings within each of these areas.



Embedding content within other courses is becoming the preferred method due to

- the every expanding scope of the SLP
- the limited number of SLPs with cleft and craniofacial experience in academia

Mills and Hardin-Jones (2019) reported that a large proportion of responding programs who reported embedding cleft palate/craniofacial anomalies content into another course offered courses entitled **“Voice and Resonance”**

- While voice and resonance subsystems have overlapping characteristics, treatment approaches to voice and resonance disorders look very different

- As part of ASHA’s KASA requirements for obtaining C’s, voice and resonance are grouped together as one one knowledge area

Cleft Palate/Craniofacial Disorders Often fall into Medical SLP Classification

While cleft palate is treated within a healthcare setting, treatment can be performed within an educational setting.

Labeling cleft palate as medical may discourage school SLPs from treating this population.

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Lack of training at the graduate level is not the only barrier

POTENTIAL PROBLEMS FOR THE SCHOOL SLP

- SLPs who work in the schools are asked to treat a broad range of communications disorders. It is unreasonable to ask SLPs to reference arcane information from grad school to attempt to treat a disorder they have only seen once.

- It is on the burden of the SLP to find and pay for CEUs related to one child on their caseload.

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Bedwineck et al. (2010)

SLPS REPORTED INFORMATION THEY WOULD FIND "VERY HELPFUL" WHEN WORKING WITH A CHILD WITH A CLEFT PALATE

1. Specific Treatment Techniques (71%)
2. Treatment of Articulation Disorders Related to VPD (59%)
3. Assessment of Articulation Disorders Related to VPD (57%)

Bedwineck et al. (2010)

INFORMATION THAT WAS RATED AS "NOT VERY HELPFUL" OR "NOT HELPFUL AT ALL"

1. Videonasoendoscopy/ Nasopharyngoscopy
2. Videofluoroscopy
3. Aerodynamics/Pressure Flow Assessment
4. Nasometry

Potential Solution for Grad Programs

It is likely that cleft palate will continue to be embedded within other coursework. But which course would be best?

Cleft palate and craniofacial belongs in multiple courses:

PEDIATRIC DYSPHAGIA/FEEDING

ARTICULATION AND PHONOLOGY

EARLY INTERVENTION/LANGUAGE

Proposed General Principles for How to Embed Cleft Palate Speech Within an Articulation/Phonology Course

1. Establishing **differential diagnosis** between compensatory/maladaptive errors secondary to cleft palate, phonological disorders, and disorders related to motor impairment
2. Introduce **specific therapeutic strategies:**
    - Establishing oral airflow
    - Use of shaping strategies
    - Removing linguistic context to teach correct placement
3. **Communication** with the individual's cleft palate team is essential

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DIFFERENTIAL DIAGNOSIS

When it comes to cleft palate, prioritize the high pressure oral consonants:

Sounds most often affected:

/p/, /b/, /t/, /d/, /k/, /g/, /s/, /z/, /f/, /v/, /ʃ/, /ʒ/, /ʧ/, /ʤ/, /ɵ/, /ð/

(HIGH PRESSURE)

Sounds least often affected:

/w/, /h/, /j/, /l/, /r/

(LOW PRESSURE)

Easiest sounds/very rarely affected:

/m/, /n/, /ŋ/

(NASAL CONSONANTS)

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What is Resonance?

ASHA.ORG

Speech resonance is the result of the transfer of sound produced by the vocal folds through the vocal tract comprised of the pharynx, oral cavity, and nasal cavity. The vocal tract filters this sound, selectively enhancing harmonics based on the size and/or shape of the vocal tract. Resonance is this filtered tone.

*Resonance is a quality of vowels and voiced consonants.

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HYPERNASALITY occurs when there is sound energy in the nasal cavity during production of voiced, oral sounds.

HYPONASALITY occurs when there is not enough nasal resonance on nasal sounds due to a blockage in the nasopharynx or nasal cavity.

Nasal Air Escape occurs as a characteristic of oral **consonant** production. Air leaks out of the nose when the palate attempting to make closure during word production. When nasal air escape is turbulent, we can suspect that air is leaking through a small VP opening.

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Differential Diagnosis

Children with cleft palate are predisposed to develop maladaptive/compensatory articulation patterns:

GLOTTAL STOPS

NASAL FRICATIVES

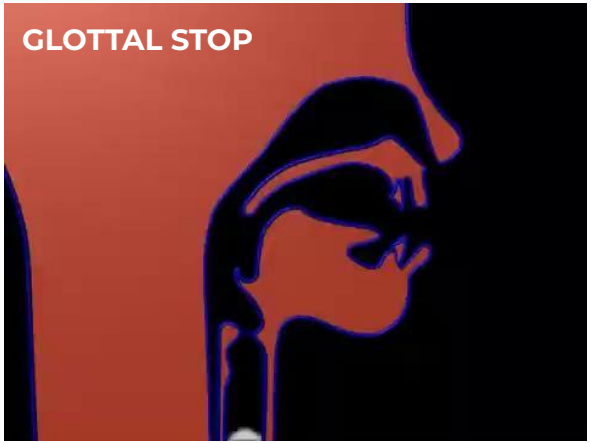
PHARYNGEAL FRICATIVES

NASAL FOR ORAL SUBSTITUTIONS
(although, these may be also be obligatory)

LARYNGEALIZATION (/h/)

Differential Diagnosis

Compensatory/maladaptive errors are not phonological or due to muscle weakness. These occur when individuals are constricting airflow at inappropriate locations within their vocal tract.



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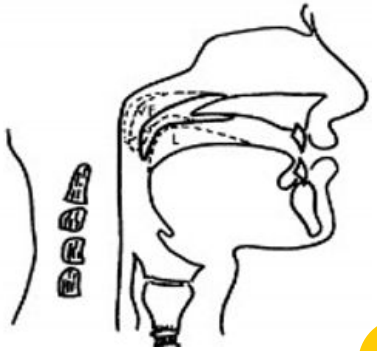
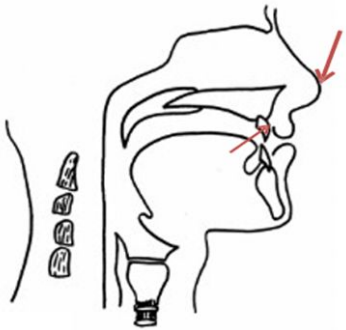
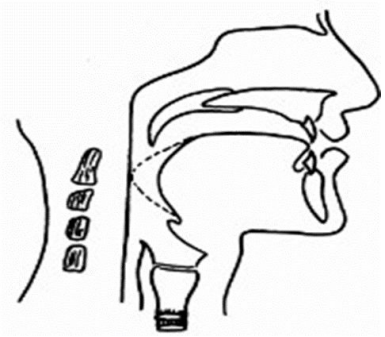
Posterior Nasal Fricative



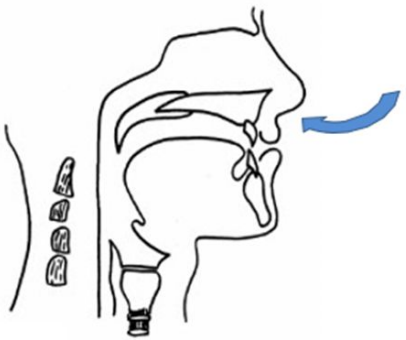
Anterior Nasal Fricative

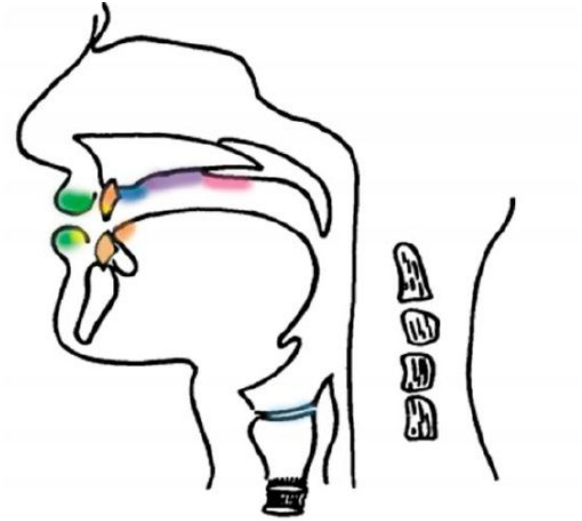


Pharyngeal Fricative



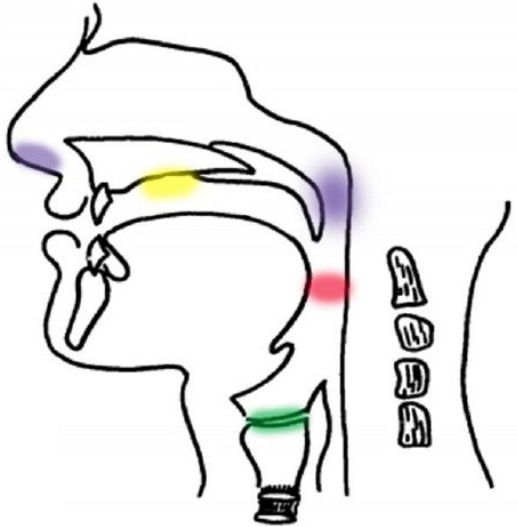
Nasal Sniff





Normal Place of Articulation

Consonant	Place of Articulation
p, b	Bilabial
f, v	Labio-dental
θ, ð	Lingual-dental
d, s, z	Alveolar
[, dʒ, ʃ	Palatal
k, g	Velar
h	Glottal



Altered place of articulation

Consonant	Error substituted for:
p, b, t, d, k, g, h	Glottal Stops
s, z, S, tS, dg, f, v	Nasal Fricatives
s, z, S, tS, dg, f, v, k, g	Pharyngeal Fricatives & Stops
t, d, k, g, s, z	Mid-dorsum Palatal Stops & Fricatives

ASHA Special Interest Group 5. Therapy techniques for speech sound disorders associated with repaired cleft palate. Handout to accompany Poster. Developed in 2014.

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Specific Therapeutic Strategies for Eliminating Compensatory Placement

1. Establishing Oral Airflow
2. Removing Linguistic Context
3. Shaping

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Establishing Oral Airflow

If a child is stopping air inappropriately throughout their vocal tract (i.e. glottal stops), it is first necessary to teach them what appropriate airflow through the vocal folds feels like. This may be done through:

TEACH BLOWING

Note: Some individuals have “disordered blowing” in which they continue to restrict airflow through their vocal folds

UTILIZE NASAL OCCLUSION

USE AUDIO AND VISUAL FEEDBACK TOOLS

a. Cotton balls, packing peanuts, pinwheels

b. Bendable straws

Establish Appropriate Airflow Through Vocal Folds

Feedback tools:

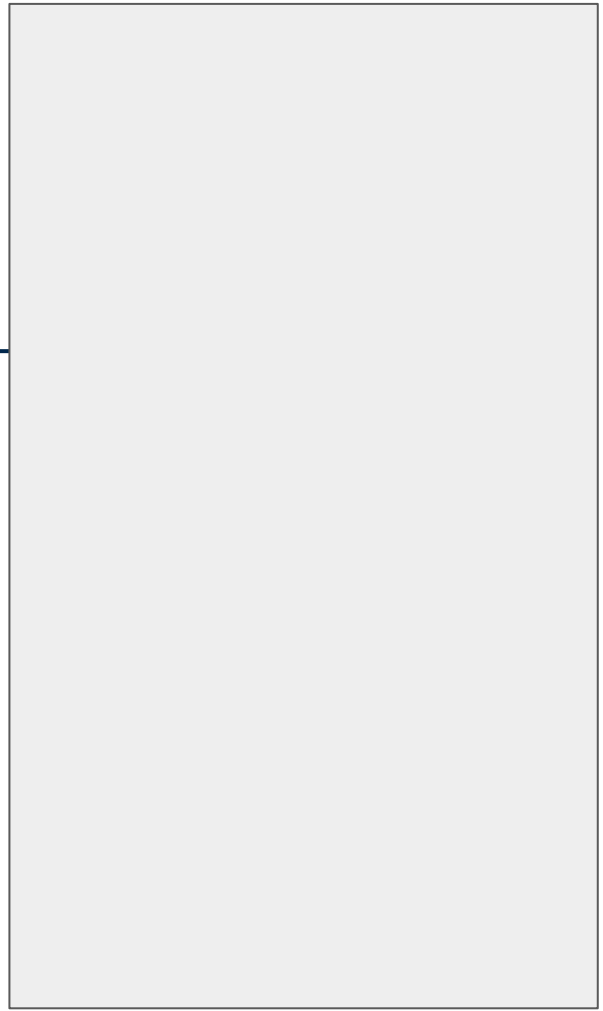
Cotton balls

Packing peanuts

Tissues

Pinwheels

Have students pretend to blow on hot foods



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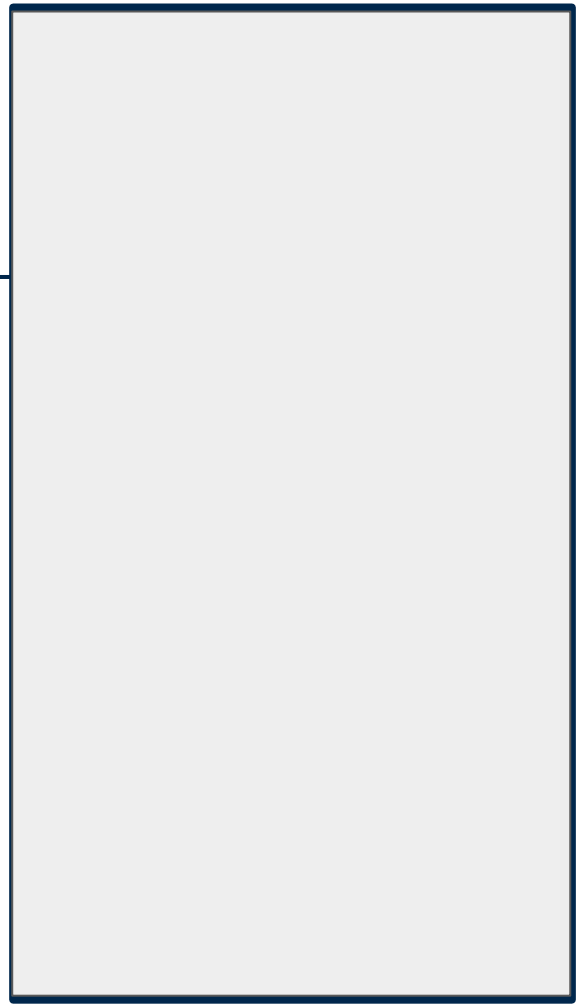
Using Bendable Straw for Auditory Feedback



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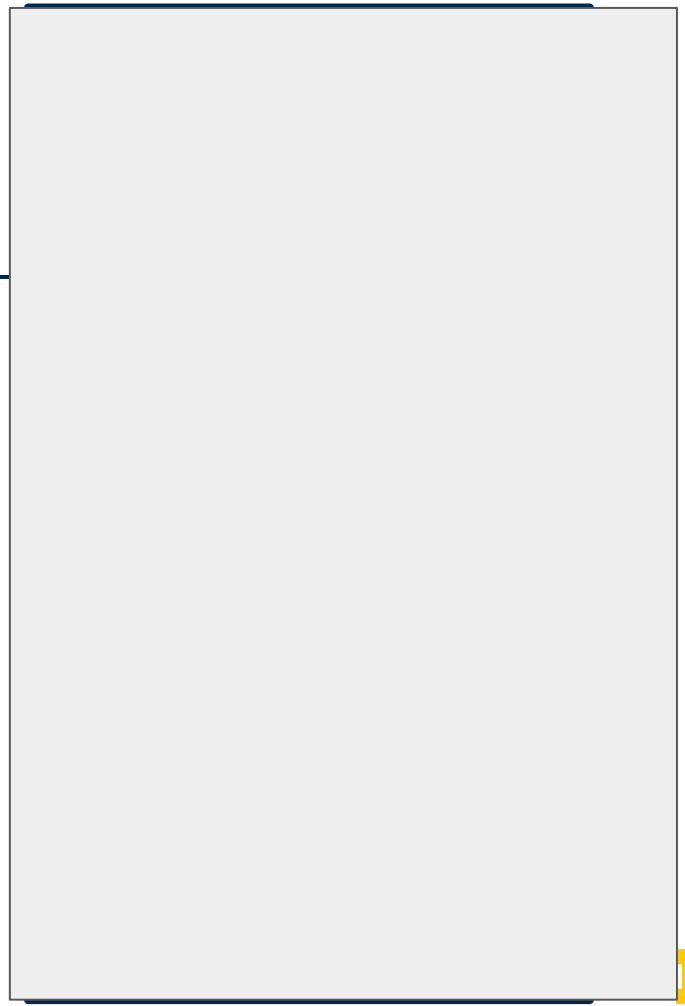
Using Nasal Occlusion to Teach Oral Pressure

Note: patient is substituting glottal stops for all sounds, but language skills are age appropriate.



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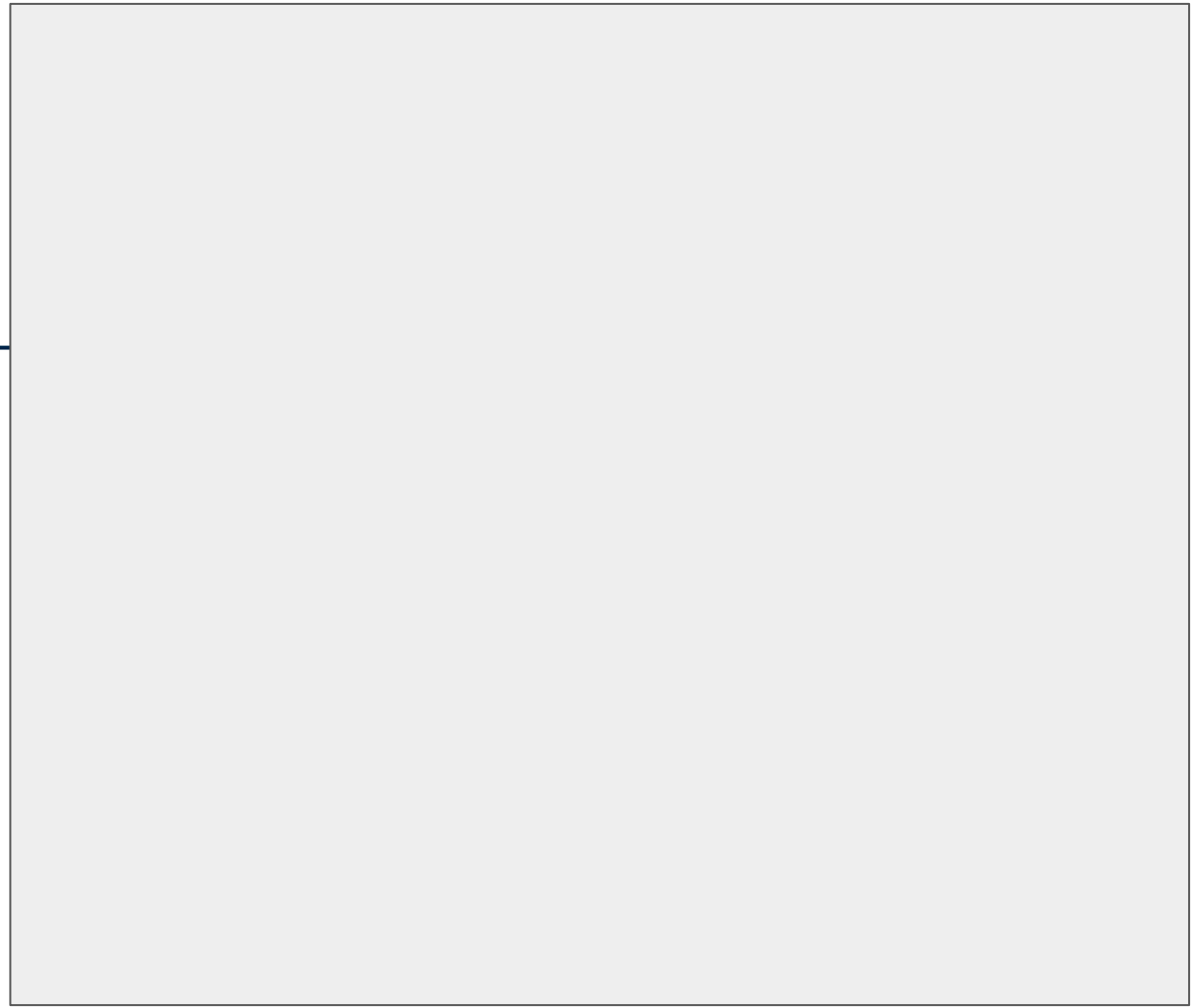
Fading Use of Nasal Occlusion



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Shaping

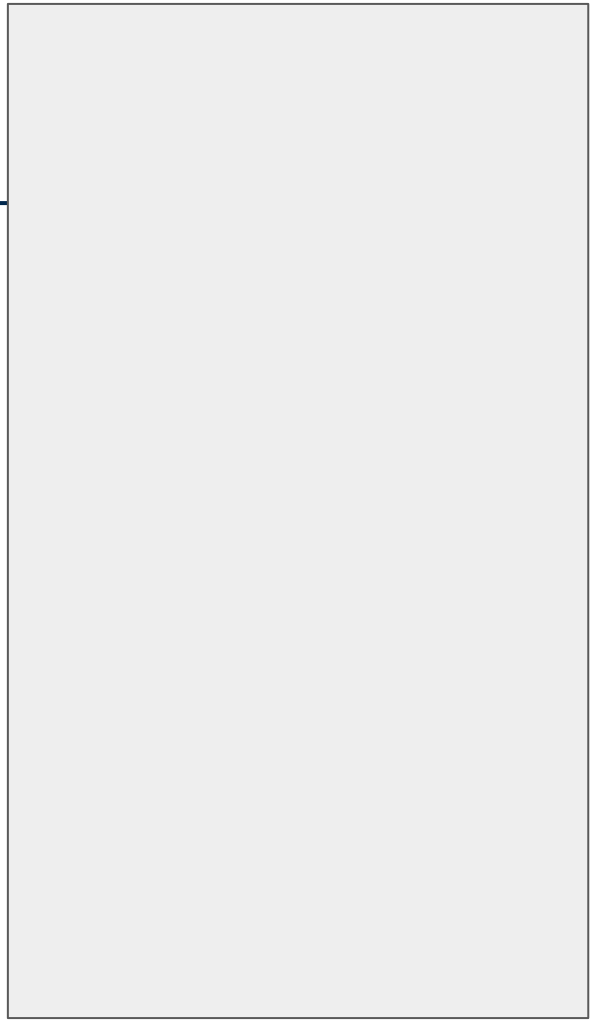
In order to teach correct articulatory placement, it is useful to identify which sounds are successful and then use that successful sound to teach the target sound.

/s/ can be shaped by using a “long t” or starting with an interdental /s/ (“th”) and use this to teach alveolar placement

Using “ng” to shape /k/ and /g/

Using /m/ to shape /b/ or /p/

Teaching /b/ using /m/



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Removing Linguistic Context

Since compensatory patterns have become so ingrained, it may be more helpful to NOT start the activity discussing that the child is specifically targeting a speech sound. This may reinforce the ingrained pattern.

Talk about how the child is learning to move their tongue in different ways or making different types of noises

For example, /s/ could be called making the “snake sound” or “sh” can taught by having the child making their “quiet” sound

Obligatory vs. Compensatory

OBLIGATORY ERRORS

- Weak oral consonants
- Nasalization of vowels and consonants
- Audible nasal air escape (for all consonants)

COMPENSATORY ERRORS

- Placement of articulation is pharyngeal, laryngeal, or nasal
- May occur on select pressure consonants, but not all
  - Ex. Phoneme-specific nasal emission

What Treating SLPs Need To Know

- They need to be able to differentiate the difference between compensatory/errors and phonological disorder/apraxia of speech/dysarthria in order to formulate the most appropriate treatment plan.
- If no known history of cleft is present, these errors can be the first way to identify the presence of a submucous cleft or non-cleft VPI.
- They need to understand which articulation errors warrant speech therapy and which errors warrant surgical intervention (e.g. obligatory errors).
- Specific treatment strategies that eliminate maladaptive placement

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Embedding Cleft Palate in Early Intervention/Developmental Language Coursework

Articulation therapy starts early!

Since cleft palate speech errors do not follow a normal phonological pattern of development, it is important not to wait until 3 years of age to address articulation.

Early speech therapy should address articulation as words are developing (~12 years of age)

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Chapman et al. (2001)

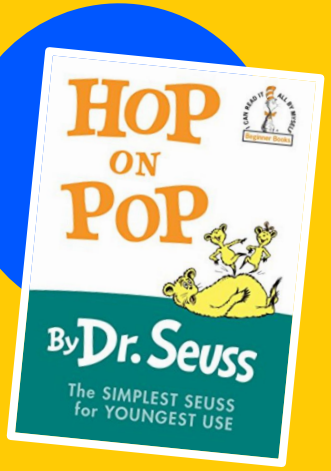
- Babies with a cleft palate were more likely to develop a delay in canonical babbling by 9 months as compared to the non-cleft population.

- Babies with cleft palate have smaller consonant inventories.

Hardin-Jones & Chapman (2014)

- Expressive vocabulary of children with and without cleft palate is comparable at 13 months
- Vocabulary size of children with cleft palate is considered smaller at 21 and 27 months of age
- Toddlers with cleft palate showed a strong preference for producing words that begin with sonorant sounds, compared to non-cleft children who produced words with a high number of obstruents

What EI Looks Like for the Cleft Palate Population



Songs:

Wheels on the Bus,
Row Your Boat,
Five Little Monkeys Jumping on the Bed,
I'm a Little Teapot,
Itsy Bitsy Spider
(target: "down"), etc.

Activities with targeted vocabulary:

BUBBLES: "bubbles, pop, up"

BOOKS WITH SIMPLE PICTURES: "book, ball, bear, butterfly, baby, dog, toy" etc

BLOCKS: "top, two, tower, tall"

CARS: "down, beep, up"

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Focused Stimulation/Early Intervention

Research has shown that the emergence of maladaptive articulation (i.e. glottal stops happens well before 3 years of age. By the time the child turns 3, these patterns are heavily ingrained.

Teaching children the correct oral placement falls within EI model of parent coaching.

Training parents how to model oral pressure consonants and activities in which these words can be produced reduced the number of glottal stop productions and and increased sound inventory overall.

Addressing correct oral consonant production between 1-3 years of age reduces the likelihood that the child will need long term speech therapy during their school years.

Scherer, N. J., D'Antonio, L. L., & McGahey, H. (2008). Early intervention for speech impairment in children with cleft palate. The Cleft palate-craniofacial journal, 45(1), 18-31.

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Targeted Vocabulary for /t/

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Don’t forget to teach what *doesn’t* work

Dedicate time within the course to explain that non oral-motor exercises have not been proven effective

Ruscello, D. M., & Vallino, L. D. (2020). The use of nonspeech oral motor exercises in the treatment of children with cleft palate: A re-examination of available evidence. American Journal of Speech-Language Pathology, 29(4), 1811-1820.

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Communication with the Craniofacial Team is Key

Communicating with the SLP on the craniofacial team should also be included in the course content

If the child is not already part of a craniofacial team, encourage the family to establish care. This ensures that the child is receiving appropriate follow up care from multiple professionals (i.e. surgeons, dentists, orthodontists, SLPs, etc)

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SOLUTIONS

FOR

CLEFT INSTRUCTION OUTSIDE OF THE ACADEMIC CURRICULUM

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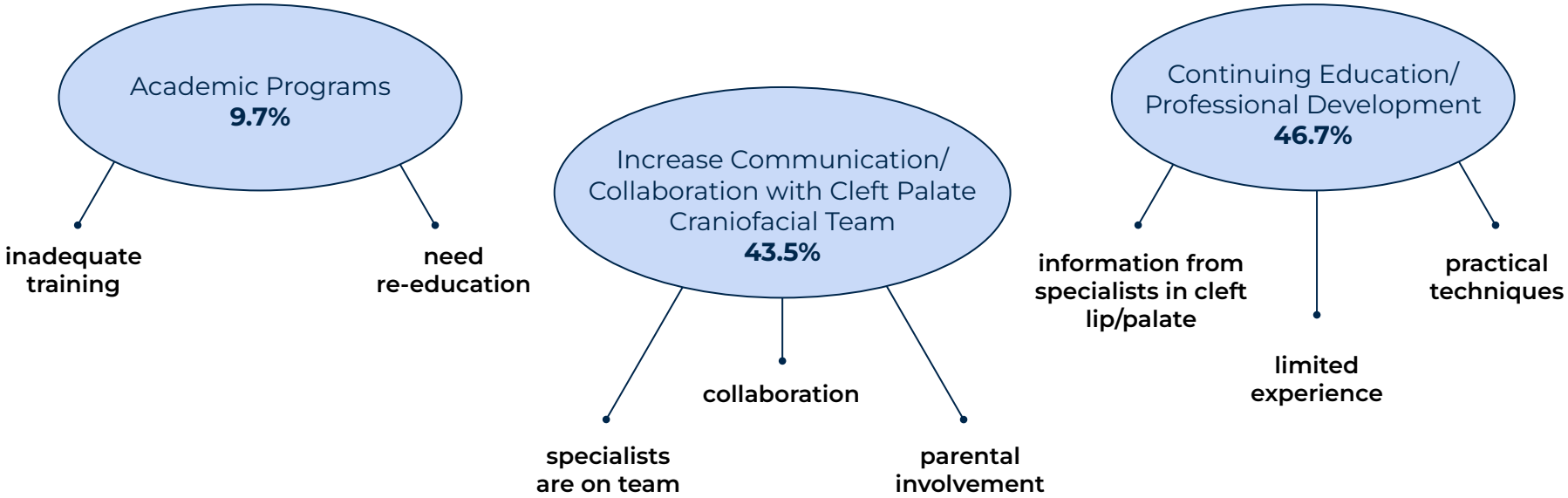
Unless an SLP graduate student has a clinical interest in this population, it is very likely that they will not receive adequate training during their graduate career.

Bedwineck et al. (2010)

FIGURE 5. Thematic map showing major themes identified from survey respondents' responses to Question #16: *Is there anything else you could tell us about how to improve the care of children with repaired cleft lip/palate?*



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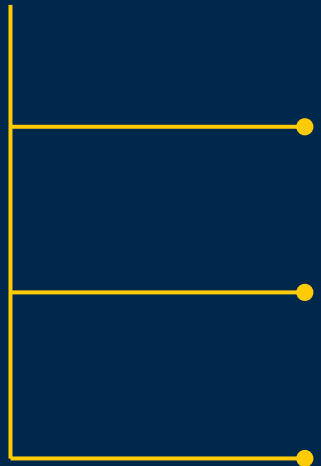
Options for Continuing Education



- Online resources
- Continuing education
- Collaboration with cleft team SLP

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Online Resources

American Cleft Palate-Craniofacial Association (ACPA) Find:

Speech samples demonstrating varying degrees of hypernasality

Resources for feeding a baby with a cleft lip and palate

Locating an ACPA accredited team and professionals

Education materials on cleft development

Letters for teachers explaining cleft

Online Resources

ASHA Practice Portal

CLEFT LIP AND PALATE

RESONANCE DISORDERS

Reviews incidence/prevalence, signs and symptoms, causes, role of the SLP, assessment, and treatment strategies

Online Resources

SMILE TRAIN/LEADERS PROJECT
www.smiletrain.org/patients-families/speech-resources

Multiple printouts of speech therapy games, practice books, and therapy handouts for parents and SLPs

LEADERS PROJECT
www.leadersproject.org/ceu-courses-2/english-cleft-palate-speech-therapy-evaluation-and-treatment-asha-0-5-ceu-self-study-course/

Online self-study course offering continuing education credits with ASHA

Practice materials available in many different languages!

MARISSA HABESHY MS, CCC-SLP

Online Webinars

1. Medbridge
2. Therapy Insights
3. SpeechPathology.com

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ONLINE SELF-STUDY COURSE OFFERING CEUs

LEADERS PROJECT, TEACHERS COLLEGE AT COLUMBIA UNIVERSITY

Free video tutorials explaining all aspects of cleft palate speech disorders

Length of videos range from 5-25 minutes. Total time is 217 minutes.

Preliminary study using pre and post assessments demonstrated that this course was an effective tool for learning (Crowley et al. 2017)

https://www.leadersproject.org/ceu-courses-2/english-cleft-palate-speech-therapy-evaluation-and-treatment-asha-0-5-ceu-self-study-course/

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LIMITATIONS

Embedded within this assumption is that clinicians have the tools, organizational support, time, and resources to appraise the rigor of the research; tailor it to their setting; and then implement the practice in their setting.

(Donohue et al., 2021, 2022)

Bedwineck et al. (2010)

I've been a school speech pathologist for 11 years and only this year saw a child with a cleft. I don't remember info from graduate school, so I contacted a friend on a cleft team.

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Collaboration between the school and craniofacial team may be the most realistic way of implementing cleft and craniofacial instruction

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5 Types of Collaboration

1. **Parallel Delivery:** Method in which roles and responsibilities are delineated and SLPs may be targeting a separate set of skills (e.g. school SLP addresses language impairment while team SLP addresses articulation)

2. **Informal Consultation:** Method in which the craniofacial SLP serves as a consultant to community SLPs for a variety of assessment and treatment strategies, but patient remains anonymous.

3. **Formal consultation:** Craniofacial SLP shares report and recommendations directly with treating SLP, following the parents' consent. Follow up may be in the form of an email, phone call, or video call. Craniofacial SLP may also be a part of the IEP meeting.

Grames, L. M. (2004). Implementing treatment recommendations: Role of the craniofacial team speech-language pathologist in working with the client's speech-language pathologist. Perspectives on Speech Science and Orofacial Disorders, 14(2), 6-9.

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5 Types of Collaboration

4. **Co-provision of care:** Non-hierarchical approach to collaboration in which leadership depends on the problem needing to be addressed. Both parties meet and share strategies based on their relative knowledge of the type of communication disorder.

5. **Expansion of the provider team:** Care is expanded to involve a variety of medical specialists as well as family members.

Grames, L. M. (2004). Implementing treatment recommendations: Role of the craniofacial team speech-language pathologist in working with the client's speech-language pathologist. Perspectives on Speech Science and Orofacial Disorders, 14(2), 6-9.

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Douglas et al. (2023)

- Everyone brings a particular value regardless of role, personal experience, or research expertise, and the navigation of these individual roles can be supported by intellectual humility

- It took time and expertise to support researchers to recognize that they had an expertise but that their knowledge had limits. Other groups offered their own expertise, with its own boundaries.

- Intellectual humility might be critical for effective collaboration across groups.

Douglas, N., Hinckley, J., Grandbois, K., Schliep, M., Wonkka, A., Oshita, J., & Feuerstein, J. (2023). How a Power Differential Between Clinicians and Researchers Contributes to the Research-to-Practice Gap. American Journal of Speech-Language Pathology, 1-8.

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A new model of cleft instruction could involve combining collaboration and continuing education

Allows SLPs to learn and apply the information in real time.

Incentivizes SLPs to collaborate and also provides acknowledgement of their time spent.

St. Louis Children's Hospital
Speech Language Therapy
Collaborative Care Program

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Conclusions

Community SLPs are often under-equipped to treat children with cleft and craniofacial disorders

- Limited training at the graduate level
- Faced with limited resources and time constraints

Conclusions

One potential solution is to embed cleft palate within multiple, required courses

- Ensures that students will be exposed to cleft palate instruction during their graduate training
- Empowers future SLPs to feel capable to treat this population
- Paints a more realistic picture of what is involved in cleft care

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Conclusions

Another solution is to emphasize the importance of collaboration between the treating SLP and the cleft team SLP

- This can be taught within graduate coursework
- Allows treating SLP to learn content and apply it at the same time

References

ASHA Special Interest Group 5. Therapy techniques for speech sound disorders associated with repaired cleft palate. Handout to accompany Poster. Developed in 2014.

Bedwinek, A. P., Kummer, A. W., Rice, G. B., & Grames, L. M. (2010). Current training and continuing education needs of preschool and school-based speech-language pathologists regarding children with cleft lip/palate.

Bettens, K., Alighieri, C., Bruneel, L., De Meulemeester, L., & Van Lierde, K. (2020). Peer attitudes toward children with cleft (lip and) palate related to speech intelligibility, hypernasality and articulation. *Journal of Communication Disorders*, *85*, 105991.

Chapman, K. L., Hardin-Jones, M., Schulte, J., & Halter, K. A. (2001). Vocal development of 9-month-old babies with cleft palate.

Donohue, C., Carnaby, G., & Garand, K. L. (2022). How to interpret and evaluate a meta-analysis in the field of speech language pathology: A tutorial for clinicians. American Journal of Speech-Language Pathology, 31

Douglas, N., Hinckley, J., Grandbois, K., Schliep, M., Wonkka, A., Oshita, J., & Feuerstein, J. (2023). How a Power Differential Between Clinicians and Researchers Contributes to the Research-to-Practice Gap. *American Journal of Speech-Language Pathology*, *32*(2), 803-810.

Grames, L. M. (2004). Implementing treatment recommendations: Role of the craniofacial team speech-language pathologist in working with the client's speech-language pathologist. *Perspectives on Speech Science and Orofacial Disorders*, *14*(2), 6-9.

Grames, L. M. (2008). Advancing into the 21st century: Care for individuals with cleft palate or craniofacial differences. The ASHA Leader, 13(6), 10-13.

Hardin-Jones, M., & Chapman, K. L. (2014). Early lexical characteristics of toddlers with cleft lip and palate. *The Cleft palate-craniofacial journal*, *51*(6), 622-631.

References

Hardin-Jones, M., Jones, D. L., & Dolezal, R. C. (2020). Opinions of speech-language pathologists regarding speech management for children with cleft lip and palate. *The Cleft Palate-Craniofacial Journal*, *57*(1), 55-64.

Kuehn, D. P., & Henne, L. J. (2003). Speech evaluation and treatment for patients with cleft palate.

Lee, A., Gibbon, F. E., & Spivey, K. (2017). Children's attitudes toward peers with unintelligible speech associated with cleft lip and/or palate. *The Cleft palate-craniofacial journal*, *54*(3), 262-268.

Mason, K. N., Sypniewski, H., & Perry, J. L. (2020). Academic education of the speech-language pathologist: A comparative analysis on graduate education in two low-incidence disorder areas. *Perspectives of the ASHA Special Interest Groups*, *5*(1), 164-172.

Nyberg, J., & Havstam, C. (2016). Speech in 10-year-olds born with cleft lip and palate: what do peers say?. *The Cleft Palate-Craniofacial Journal*, *53*(5), 516-526.

Pannbacker, M. (2004). Velopharyngeal incompetence.

Watterson, T., Mancini, M., Brancamp, T. U., & Lewis, K. E. (2013). Relationship between the perception of hypernasality and social judgments in school-aged children.

Ruscello, D. M., & Vallino, L. D. (2020). The use of nonspeech oral motor exercises in the treatment of children with cleft palate: A re-examination of available evidence. American Journal of Speech-Language Pathology, 29(4), 1811-1820.

Scherer, N. J., D'Antonio, L. L., & McGahey, H. (2008). Early intervention for speech impairment in children with cleft palate. The Cleft palate-craniofacial journal, 45(1), 18-31.

Vallino, L. D., Lass, N. J., Bunnell, H. T., & Pannbacker, M. (2008). Academic and clinical training in cleft palate for speech-language pathologists. *The Cleft palate-craniofacial journal*, *45*(4), 371-380.

Yairi, E., & Ambrose, N. G. (2005). Early childhood stuttering for clinicians by clinicians: Pro Ed.

DISCUSSION

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