Orofacial Observations of At-Risk Children: Recommendations for Parents and Professionals

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Overview

- This presentation explains how orofacial observations may be relevant to the diagnosis of medical, genetic or neurological disorders via clinical case examples. It offers caregivers and related professionals general guidelines for noting atypical orofacial features and explains why in some select circumstances, speech language pathologists and/or adoptive parents may be the first individuals to note unusual facial characteristics in children.

LET'S TAKE A LOOK

CASE STUDIES

Case I: New Kid on the Block

- 8-year-old boy admitted due to numerous and persistent speech sounds errors, including an interdental lisp
- Results of the previous speech and language assessment by another SLP
  - Listed sound errors
  - Previous orofacial exam results was a standard industry blurb
    - "A cursory examination of the face and oral cavity revealed that the anatomical structures were within functional limits for speech production purposes."
- **What I saw when the child opened mouth**
- Extensive tooth decay
- Child needed urgent recommendation for an emergency dental appointment due to a serious risk of oral infection
- Despite his age and the fact that the family had dental insurance, the boy had never seen the inside of a dentist's office

Case I: New Kid on the Block (cont)

- My write-up of what his dentition **actually** looked like
  - "Assessment revealed symmetrical features with a habitual semi-opened-mouthed posture and tongue thrust pattern. Dentition was remarkable for anterior open bite (central teeth do not meet to form appropriate occlusion), excessive spacing (e.g., two upper lateral incisors have not fully erupted but are already significantly decayed), as well as severe gum inflammation and extensive upper mandible tooth decay affecting molars, premolars, canines and incisors (all teeth of the upper jaw).“
- Urgent dental services were initiated
  - 5 root canals
  - 3 extractions
  - 10 cavities filled
- Infection avoided
- Most teeth saved

Case II: Not so Fresh off the Boat

- 3-8 year old boy, adopted from Russia at the age of 3-0
- Seen a number of other adoption professionals already
  - Neurologist
  - OT
  - SLP
- Previous assessments including speech and language were "unremarkable"
- No previous services received since arrival to the country
- During assessment atypical (dysmorphic) facial features were noted
  - Mild -moderate hypotonicity
  - Microcephaly (very small head)
  - Medially deviated inward set eyes
  - Anteriorly rotated (widely set) ears
- Referred the parent for a second opinion with a pediatrician specializing in internationally adopted children due to above as well as … (next slide)

Case II: Not so Fresh off the Boat (cont)

- Additional red flags
  - Significantly decreased play skills
  - Severely impaired language ability
  - Significant social emotional and behavioral deficits
    - Excessive impulsivity
    - Distractibility
    - Hyperactivity
    - Decreased self-regulation
    - Rapid over-stimulation
    - Anger outbursts and tantrums when others refused to follow his agenda and attempted to set limits on his behavior

Case II: Not so Fresh off the Boat (cont)

- Second Opinion Diagnosis
  - Fetal Alcohol Spectrum Disorder
    - Umbrella term for a range of physical, mental, behavioral, and learning disabilities that occur in children whose prenatal history is remarkable for excessive maternal alcohol consumption
- Relevant services were initiated 8 months later
- At the time of adoption this child presented with significant unrecognized deficits, which continued to persist unrecognized and unaddressed post adoption
- Child could have been receiving relevant and necessary services for 8 months post adoption, **but didn't** because his deficits were missed!

Case III: What's Wrong with his Face?

- 6-year-old child previously assessed by another SLP
- Previous report stated that "a cursory examination of the oral structures revealed no anomalies that would interfere with appropriate speech production."
- The report did not mention any other information regarding the child's perceptual speech characteristics.
- **Here's what he actually presented with**
  - "Informal assessment revealed asymmetrical facial features at rest, during oral postures and in connected speech (one side of mouth moving more prominently than the other side). Facial asymmetry was particularly evident during labial retraction and buccal protrusion (asymmetrical smile and asymmetrical puffing of the cheeks). No lingual deviations were apparent on protrusion. Lingual elevation, protrusion and retraction were appropriate; however, lingual lateralization was slow and uncoordinated (client was unable to move tongue from side to side outside of his mouth and could do so limitedly inside the oral cavity)."

Case III: What's Wrong with his Face? (cont)

- **What else did I see?**
  - "Client presented with significant difficulty managing oral secretions, in the absence of identifiable cause (i.e. upper-respiratory infection, cold, allergies, etc). Client repeatedly hacked and coughed through several assessment sessions and presented with a wet and gurgled vocal quality suggestive of difficulty clearing excess mucosal secretions from vocal folds. Client's sustained /a/ phonation was brief (< 3 secs) and weak, indicating insufficient breath support. Overall vocal volume was soft. On several occasions during the sessions, he was observed to bang with his palm on the table, as if attempting to increase the volume of spoken words by physical action. Client's resonance was remarkable for mild hypernasality. Client's speech presented as mildly dysarthric ("mumbling" quality marked by a rapid imprecise rate and excessive breathiness)."

Case III: What's Wrong with his Face? (cont)

- Since these findings were clearly atypical, I recommended a neurological consult
- What did all the second opinions yield?
  - Diagnosis of cerebral palsy
  - Mild mental retardation
  - Referral for genetic testing
- Despite past documentation of significant difficulties during multiple assessments, it was the first time his atypical facial appearance and perceptual speech characteristics generated a relevant follow-up resulting in the creation of an appropriate intervention plan targeting his numerous needs

Colleague Chat

- Me: Can you interpret what you see?
  - "I have no idea what I am seeing"
  - "I don't know how to call it"
  - "Not my responsibility to document any unusual features that's not directly related to speech production"
  - " I don't want to look stupid, what if I'm wrong and it's nothing?"
- Me: But what if you're right?
  - It is our job as trained professionals to document appropriately what we see, even if we are not always certain what it means. It doesn't matter that we may not use precise medical terminology or that we may be reporting something benign and developmentally appropriate, considering the wide degree of variation in pediatric facial asymmetry. The important thing is to document any concerns and attempt to refer the child for relevant follow-up consultations in order to determine the cause.

At Risk Children

- Bilingual/multicultural children from low socioeconomic status (SES) households
- Domestically adopted and foster care children from low socioeconomic status (SES) households
- Deficits may not be detected until they enter school
  - Public schooling is free
  - Specialized medical care and related services must be sought out and paid for

At -Risk Children (cont)

- Internationally Adopted Children
- Barriers to early identification
  - Pre-adoption environmental risk factors
    - Length of institutionalization
    - Quality of medical care in orphanage
    - Adoptive parents may have limited access to pre-adoption information
      - Paucity of prenatal, medical and developmental history details in the adoption records

Let's talk facts

- Lack of detection for at-risk children is further increased when there are obstacles to receiving appropriate early medical care and ancillary services like early intervention
  - Limited financial means
  - Lack of education or information
  - Cultural and linguistic barriers
- Oftentimes it may be the caregivers and/or SLPs who are the first individuals to observe something different or unusual regarding the child's facial features, oral structures, or any other appearance anomalies

Detection is easier than you think

- Does the child's face look symmetrical?
- Do you see any obvious signs of weakness (paralysis) on either side of the face
  - Particularly evident when the child smiles and one side of the face droops or doesn't move
- Do you find that the child's features look odd or unusual in any way?
  - Unusually wide or narrow set eyes
  - Unusually set ears
  - Virtual absence of a nose bridge
  - Excessively thin upper lip
- Do you notice any unusual spots, nodules, or openings on the child's face, body or mouth?

Detection is easier than you think (cont)

- In what condition is the child's mouth?
- Is there excessive tooth decay?
- Do you see an unusual absence of teeth
  - In older children
- Unusual bite
  - Open bite
  - Cross bite
- Is there excessive drooling?
- Does the child have a usual voice or unusual cough in the absence of a documented illness?

Conclusion

- If you see anything "unusual" then share your concerns with relevant medical professionals
  - Neurologists
  - ENTs
  - Orthodontists
- They will investigate further whether your observations merit additional follow ups
- If you are concerned, bring it up!
- "If you see something, say something!"
- You never know!
- Chances are, you may be paving the way to timely detection and ultimately to the provision of relevant intervention services for the child

References

- Golper, L. (2009). *Medical Speech Language Pathology: A Desk Reference*. Clifton Park, NY: Delmar Cengage Learning.
- Shipley, K., McAfee, J. (2008). *Assessment in Speech Language Pathology: A Resource Manual* (4th ed.). Clifton Park, NY: Delmar Cengage Learning.

Helpful Resource Bundles

- The Checklists Bundle
- General Assessment and Treatment Start Up Bundle
- Fetal Alcohol Spectrum Disorders Assessment and Treatment Bundle
- Multicultural Assessment Bundle
- Narrative Assessment and Treatment Bundle
- Introduction to Prevalent Disorders Bundle
- Social Pragmatic Assessment and Treatment Bundle
- Psychiatric Disorders Bundle

Helpful Resources

- Assessment Checklist for Preschool Aged Children
- Assessment Checklist for School Aged Children
- Speech Language Assessment Checklist for Adolescents
- Differential Diagnosis of ADHD in Speech Language Pathology
- Creating Functional Therapy Plan
- Selecting Clinical Materials for Pediatric Therapy
- Social Pragmatic Deficits Checklist for Preschool Children
- Social Pragmatic Deficits Checklist for School Aged Children
- Auditory Processing Deficits Checklist for School Aged Children

More Helpful Resources

- Fetal Alcohol Spectrum Disorder An Overview of Deficits
- Speech Language Assessment and Treatment of Children with Alcohol Related Disorders
- The Role of Frontal Lobe in Speech and Language Functions
- Executive Function Impairments and At Risk Pediatric Populations
- Behavior Management Strategies for Speech Language Pathologists
- Narrative Assessment of Preschool and School Aged Children
- Treatment of Social Pragmatic Deficits in School Aged Children

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