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Speech and Language Evaluation

Client: JV

Supervisor: Jessica Baquero, M.S. CCC-SLP

Date of Birth: 6/29/19

Date of Evaluation: 10/2/20

Graduate Clinician: Susan Gerlovina

Assessment Materials:

Pediatric Intake Form

Parent Interview

Standardized Assessment Tool

Rosetti Infant-Toddler Language Scale

Oral-Peripheral Exam

Clinical Observation

Informed Clinical Opinion

Note
<i>The test materials utilized in the assessment are to be used for gross comparative purposes only and should serve as an estimate of the child's areas of difficulty and approximate functioning level. Results should serve as an estimate and not as an absolute indication of the child's abilities. Standardized language test scores are not reported due to the inherent bias in the format of the standardized testing</i>

Background Information:

JV is a 15-month-old bilingual Spanish speaking male who was seen virtually via Zoom on behalf of the LIU Downtown Brooklyn Speech-Language and Hearing clinic for a comprehensive evaluation. He was referred for an evaluation by a speech language pathologist and friend of the mother, Noemi Martinez. He was accompanied to the evaluation by his mother, Larisa Ortiz. Mom's main concern is that JV is having difficulty with pronunciations and his lack of sound production due to a bilateral cleft palate and reconstructed lip.

Birth, Medical and Developmental History:

JV was born full term via vaginal delivery with no reported complications during pregnancy. It should be noted that the mother reported taking medication during pregnancy for mycoplasma, influenza, nausea and vomiting. JV was born with a bilateral cleft palate and lip. He has undergone a nasopalveolar molding (NAM) procedure at approximately 7-8 weeks old. JV also had a Latham-Millard procedure at 11 months, which he wore for 8 weeks. He has recently undergone a lip repair surgery at 13 months. Mrs. Ortiz reported that a cleft palate reconstructive surgery is scheduled for December 3rd.

JV was bottle fed until 9 months. Mom reported experimenting with a multitude of bottles until she found the perfect fit for JV. There was a time period of 1 month where JV was not gaining weight due to the wrong bottle usage- Dr. Brown's. Feedings were long at that time and JV had to work hard to suck out the fluid. After switching to a new bottle, Comotomo, JV began to gain weight once more. He consumed puree foods at 6 months and finger fed self at approximately 8-9 months.

JV's medical history is remarkable for fluid in the ears which resulted in middle ear tube insertion at 11 months. JV's developmental milestones were reported to be grossly within normal limits with crawling at 6-7 months, sitting up at 7 months and walking at 11 months. Speech and language milestones were reported to be grossly within normal limits as well. He spoke his first words of "mama, agua and caca" at approximately 12 months.

Family and Social History:

JV lives in San Juan, Puerto Rico. He resides with his mother, a judge, father, an attorney and 4-year old brother. According to the intake form, there is no reported family history of speech and language difficulties. JV spends most of his time predominately with his mother and family as they are all home due to the COVID-19 pandemic. He has yet to attend day care. Mom is reluctant to enroll him currently as it increases the likelihood of him getting sick prior to the cleft palate surgery. JV enjoys going for walks, riding his tricycle and running around. Mom reported that he has minimal daily exposure to screen time and enjoys playing with cars, blocks and toys that have buttons, light up and make sounds.

Language Background:

JV's primary language spoken at home is Spanish. Mom reported that JV is exposed to English through his brother's online schooling. JV is predominantly Spanish as most of his interactions occur in that language. He is followed by a cleft palate team but hasn't had a speech evaluation or speech services to date.

Behavioral Observations:

JV was eager to interact with the evaluator as he immediately ran to the Ipad to see who mom was talking to. He had no difficulty detaching from mom and playing in a familiar environment- his room. He was given a maraca by mom and engaged appropriately with it by shaking it. He

then engaged in a fetching game with mom by running after the ball and throwing it back to mom. He maintained attention during a peek-a-boo game and bubble blowing activity. When mom turned on some music he happily danced along and attempted to sing along as well. JV became upset when mom turned the music off and approached mom while crying and reaching for the phone as a request to turn the music back on. Overall, he was a friendly boy who was interested in exploring toys in his environment and interacting with the evaluators.

Oral Peripheral Exam:

According to Shipley and McAfee (2008), the oral-peripheral exam is an assessment of the anatomical and functional integrity of speech and swallowing structures. The oral peripheral exam evaluates the structure and function of the speech mechanism to assess adequacy for speech production and feeding.

Structure and Function:

An oral motor exam was conducted during the evaluation. JV presented with a bilateral cleft palate of the hard and soft palate and reconstructed bilateral cleft lip. Facial symmetry was noted at rest. However, it should be noted that JV presented with a wide and flattened nose. According to Kummer (2001), this facial feature is typical for children with cleft palate and lip. JV was noted to maintain an open mouth posture which resulted in excessive secretion past the level of his chin. As per mom's report, the drooling became worse post Latham procedure and she changes his clothes multiple times per day. JV followed the instruction to open his mouth and say "ah" for a short period of time. Some scattered dentition was noted in JV's oral cavity. He presented with a type 1 malocclusion as the Latham procedure was successful in adjusting the alignment of his premaxilla. Due to his age and method of evaluation, JV had difficulty following other 1-step directions and imitating models such as "puff cheeks, stick out tongue" during the oral motor exam. Pictures provided by mom were used to supplement the oral motor exam due to JV's age and the limitations of assessing him via Zoom.

Feeding and Swallowing:

According to Mrs. Ortiz, JV does not present with any feeding difficulties. Some instances of nasal regurgitation were observed by mom however, JV finds it funny and continues to eat. JV was bottle fed until 9 months. JV is not a picky eater and enjoys a variety of foods such as pieces of rice, pasta, cookies and crunchy foods. As reported, he has indicated a desire to eat the same food as the rest of the family by reaching for mom's food during mealtime. Mom reported adequate utensil stripping, bolus manipulation and no oral residue post deglutition.

Audition:

JV passed his newborn hearing screening then failed subsequent screening at the ages of 5 months and 7 months due to fluid in the ears. At 11 months, JV had middle ear tubes inserted. He passed his hearing test post tube insertion. No ear infections were reported. He is being followed by the ENT.

Voice and Resonance:

Due to JV's limited verbal output, fluency was not fully assessed during the evaluation however, JV's voice and resonance appeared to be WNL.

Fluency:

Due to JV's limited verbal output, fluency was not fully assessed during the evaluation.

Articulation/Phonology:

According to Templin's (1957) developmental chart, the phonemes /p/, /b/, /m/, /h/, /n/, /w/ are the first consonants to be acquired. A sample of JV's speech production was collected throughout the evaluation. The following phonemes were observed and reported to be produced /a/, /m/, /n/ and /u/. Mom reported that JV is attempting to produce back sounds. He was previously able to produce the /k/ phoneme but no longer does post Latham procedure. It has also been reported that JV attempts to produce the /p/ phoneme but sounds like he's aspirating by pulling in air when doing so. Production of the /p/ phoneme was not observed throughout the evaluation. When imitating mom's model, he was observed to maintain the correct number of syllables even when omitting phonemes. For instance, when producing the word maraca, he stated "/ma-a-a/." Therefore, he still produced a 3-syllable word even when omitting the /r/ and /k/ later developing sounds.

Language:

Standardized Assessment

The *Rosetti Infant -Toddler Language Scale* was utilized to assess JV's language skills. The Rosetti is an instrument that identifies preverbal and verbal language developmental delays in children from birth to 36 months old. This assessment measures interaction-attachment, gestures, play, language comprehension and language expression. The Rosetti Infant-Toddler Language Scale allows for behaviors to be elicited, observed, or reported from parents.

The results are as follows:

Developmental Area	Basal	Emerging Skills	Ceiling
Pragmatics	12-15 months	-----	15-18 months
Gestures	9-12 months	-----	15-18 months
Language Comprehension	12-15 months	-----	15-18 months
Language Expression	12-15 months	-----	15-18 months
Interaction-Attachment	12-15 months	1/3 items at 15-18 months	18-21 months
Play	12-15 months	-----	15-18 months

Pragmatics:

Pragmatics refers to how a child uses language across various social contexts in order to communicate with others. JV demonstrated pragmatic skills in the 12-15 months range. As per mom's report, he is able to imitate other children and responds to other children's vocalizations. Turn taking routines were elicited during a ball game in which mom and JV took turns throwing to each other. JV was observed to utilize vocalizations more frequently during interactions with both mom and the evaluators as opposed to playing on his own. JV did not exhibit any emerging pragmatic skills in the 15-18-months age range.

Gestures:

Gestures refers to non-verbal communication in the form of body movements used to express thoughts and aid in communication in the presence or absence of verbal language. JV's gesture skills fell within the range of 9-12 months as there were no items listed in the 12-15 months age range. Due to the method of evaluation, the results of this section were primarily based on

mom's report of his skills. She reported that he is able to feed others, brushes teeth and shakes head "no." He was observed to hug mom after multiple instructions to do so. Combing hair was elicited after the instruction "comb hair" was given in Spanish and a model by mom and the evaluators was provided. JV did not exhibit any emerging gesture skills in the 15-18 months age range.

Language Comprehension:

Language Comprehension refers to a child's ability to understand language. JV demonstrated language comprehension skills within the 12-15 months age range. He was observed to follow one-step commands during play with the ball and maraca. When mom said "shake maraca" in Spanish, JV followed that command. When playing with the ball, JV followed one step commands to retrieve the ball and throw it back to mom. He responded to requests to say words by attempting to repeat mom's model of "ball" and "maraca" in Spanish. He was observed to enjoy rhymes when mom put on a song and JV joyfully danced and attempted to sing along to it. He was observed to understand the preposition "up" and identified body parts such as his head during play. JV did not exhibit any emerging language comprehension skills in the 15-18 months age range.

Language Expression:

Language Expression refers to a child's ability to effectively communicate basic wants and needs through verbal output. JV demonstrated language expression skills within the 12-15 months age range. Mom reported that JV shakes his head "no" + waves in response to others. JV was observed to sing along to a Spanish tune although he only imitated one word in the song. As previously mentioned, he imitated mom's model of "ball" and "maraca" in Spanish although he omitted the consonant sounds /b/, /r/ and /k/ when doing so. Nonetheless, he maintained the syllable structure for each word and was observed to label the ball frequently. He was observed to take turns vocalizing with mom when mom elicited repetitions from JV when listening to the song and playing with the ball and maraca. As per mom's report, he takes turns vocalizing with children as well. The evaluator and mom attempted to elicit animal sounds such as "moo", but JV has difficulty with bilabial sounds and bilabial closure due to his open mouth posture and cleft palate. He combined vocalizations and gestures when attempting to obtain more music when mom turned it off. JV did not exhibit any emerging language expression skills in the 15-18 months age range.

Interaction-Attachment:

Interaction-attachment refers to the child's reciprocal interactions with his caregiver. JV demonstrated interaction-attachment skills within the 12-15 months age range. JV was observed to easily detach from mom in a familiar environment, his room, to play with toys. This ability to play away from familiar people presents as an emerging skill within the 15-18 months age range. He was not shy around strangers (the evaluators) as he approached the Ipad, smiled at the screen and was curious to see who was talking to him. He was not observed to request assistance from an adult or retreat to caregiver when an unfamiliar adult approaches as no unfamiliar adults were physically present.

Play:

Play refers to the way a child engages in activities performed for self-amusement. Changes in a child's play represents the development of representational thoughts. JV demonstrated play skills within the 12-15 months age range. He appropriately explored and manipulated toys by functionally interacting with them. For instance, when given a maraca he shook it to make noise.

Symbolic play was observed when JV utilized a bucket as a hat and placed it on his head. He engaged in a joint attention activity with mom when playing a fetching game. Mom threw the ball and JV ran to pick it up and throw it back to her. He demonstrated some motor exploration during play as well when he walked away from mom to climb a stack of toys in the corner of his room. JV did not exhibit any emerging play skills in the 15-18 months age range.

Impressions:

JV is a 15-month old bilingual Spanish speaking male who participated in a comprehensive evaluation to assess his speech and language abilities. He presents with a structural abnormality of a bilateral cleft palate and reconstructed bilateral cleft lip. An analysis of standardized and dynamic assessments indicated the following:

Results of the *Rosetti Infant Toddler Scale* indicated that JV's skills are within his age range of 12-15 months across all domains except gestures for which he achieved a basal of 9-12 months since there were no test items in the 12-15 months age range. He achieved a ceiling of 15-18 months across all domains except in the domain of interaction-attachment for which he achieved a ceiling of 18-21 months. He demonstrated adequate pragmatic skills through turn taking and vocalizations during joint attention activities. JV's gestural skills were reported to be within age range as well through the use of waving and shaking his head "no" although gestures were minimally observed during the evaluation. Within the domain of play, he appropriately engaged in a fetching game with his caregiver. He demonstrated functional use of objects when playing with a maraca and the ball. He demonstrated symbolic use of objects when he utilized an empty bucket as a hat. He explored a variety of toys throughout the evaluation. He is a friendly child and easily detached from mom in the familiar environment of his room to play. Throughout the evaluation, JV presented as a playful child whom eagerly explored the environment and interacted with a variety of toys. He was able engage in joint attention activities such as bubble blowing and a game of peek-a-boo and did not appear to be shy around the evaluators.

Language Expression refers to the ability to effectively communicate basic wants and needs through verbal output. JV was noted to repeat words when mom labeled objects such as "ball" and "maraca" in Spanish. He was observed to maintain the syllable structure of words but had difficulty with constant sounds such as /p/, /b/ and /r/. He also exhibited difficulty with animal sounds such as "moo". This is due to his structural abnormality of the bilateral cleft palate and reconstructed bilateral cleft lip. As a result, high pressure consonant sounds are difficult for JV to produce while vowels and nasal sounds are simpler for JV to produce. He was observed and reported to produce the following phonemes; /a/, /m/, /n/, and /u/. He was observed to produce vocalizations consisting of mostly vowels when engaged in play with mom. He utilizes gestures to aid in communication and was noted to cry as a form of protest when mom turned music off.

Based on the overall findings of the *Rosetti Infant Toddler Scale*, clinical assessments, play assessment and informed clinical opinion, JV was found to be within his age range across all domains. However, he was noted to not possess developmentally appropriate sounds such as the bilabial stops /p/ and /b/ in his phonemic repertoire. This is a direct result of his anatomical abnormality of bilateral cleft palate and reconstructed cleft lip. JV's delay in this domain may negatively impact his social, educational and play skills upon starting school.

Additionally, it should be noted that JV maintains an open mouth posture at rest. As a result, excessive secretion past the level of his chin was noted. As per the Mrs. Ortiz's report, JV is not

a picky eater and the cleft palate does not interfere with his ability to consume a variety of textures and consistencies. He often expresses a desire to eat other foods by reaching over to mom's plate at mealtime.

Due to JV's limited speech output, his fluency and voice/resonance could not be thoroughly assessed.

ICD-10: Q37.4, F80.0

Recommendations:

Based on the evaluation findings the following are recommended:

- Initiate speech services 2-3 times a week post cleft palate surgery. At this point, JV should have the ability to build intraoral pressure to produce oral sounds once the cleft palate is reconstructed.
- Follow up with cleft palate team and the ENT
- Regular audiological evaluations

Home Suggestions:

- If you hear your child producing a "throat sound," growling sound or other compensatory misarticulation, do not repeat it back to them. Instead, make a sound the child can produce, such as "mamama" or "ooooh." Try to reinforce typical sound development by modeling sounds that you want your child to use when they say words.
- When modeling sounds and words, exaggerate the pronunciations.
- When labeling objects, put the objects near mouth when giving models to pair the item with the word and draw attention to the mouth.
- Focus on bilabial and initial developmental sounds such as /p/, /b/, /m/, /n/ and /h/.
- When practicing oral sounds such as /p/ and /b/, place a napkin in front of his mouth. Correct pronunciations will make the napkin move. This can be a fun activity to do with his sibling as well to see who can make the napkin fly further with their pronunciation.
- Continue education on cleft palate. References and more information can be found at <https://www.leadersproject.org/>.

Long-Term Goals:

JV will produce developmentally appropriate bilabial CV syllables with 80% accuracy by 20 months of age.

JV will increase his vocabulary by producing CVC words consisting of nasal phonemes with 80% accuracy by 24 months.

Short Term Goals:

1. JV will discriminate the /p/ phoneme from the /b/ phoneme given maximum multimodal cues with 80% accuracy across 3 consecutive sessions
2. JV will produce bilabial oral sounds in isolation such as /p/, /b/ and /w/ with 80% accuracy given maximum multimodal cues with 80% accuracy across 3 consecutive sessions.
3. JV will produce bilabial oral syllables with 80% accuracy given maximum multimodal cues across 3 consecutive sessions

4. JV will produce CVC words consisting of nasal phonemes with 80% accuracy given maximum multimodal cues across 3 consecutive sessions.

Susan Gerlovina
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Jessica Baquero, M.S. CCC-SLP
Supervising Clinician

References:

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