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Abstract

English Language Learners (ELLs) with Selective Mutism (SM) mirror their typically developing, bilingual peers who are going through the silent period. The silent period is a normal phenomenon characterized by decreased expressive language and a general lack of communication that is temporary. Understanding second language acquisition and differentiating SM from the silent period, however, is critical to reduce over- and under-identification of children for services. Whereas bilingual children with SM do not speak in either of their languages, bilingual children in the silent period are only silent in their second language. Although limited information exists regarding assessment and treatment for SM in ELLs, general assessment and intervention strategies are available. The notion of selective stimulability (how stimulable a child with SM is for expressive communication) may be used in assessment in order to encourage children with SM to communicate expressively when using speech and language protocols and for determining prognosis for treatment. Guidelines for differential diagnosis of SM and the silent period are offered in this paper, including a case example of the use of selective stimulability in a speech-language assessment of a Spanish-speaking child. Moreover, additional information related to the assessment process and implications for intervention are provided.

Keywords: *Selective Mutism; Silent Period; Bilingual Children; Speech and Language Assessment; Differential Diagnosis; English Language Learner; Stimulability*

Speech-language pathologists (SLPs) identify, evaluate, and diagnose children with a wide variety of disorders related to communication. These disorders are vast and include conditions related to speech (e.g., voice, speech sounds, fluency) and language (e.g., receptive, expressive, social communication). Perhaps one of the more uncommon conditions that SLPs work with is selective mutism (SM). SM is a rare anxiety disorder typically manifesting during early childhood as categorized in the 2013 *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5; American Psychiatric Association, 2013). A child with SM speaks in selective environments in which he or she feels comfortable (e.g., at home with family members) but not in environments where anxiety is heightened (e.g., at school with peers or teachers). Although SM is a rare disorder, SM prevalence is minimally three times higher in culturally and linguistically diverse children from immigrant families (Toppelberg, Tabors, Coggins, Lum, & Burger, 2005). Children from linguistically diverse backgrounds, also known as English Language Learners (ELLs) in the United States (US), represent a growing population in US schools (e.g., Shin & Kominiski, 2010). While ELLs speak a wide array of different languages, the majority are Spanish speakers (US Census Bureau, 2017; Shatz & Wilkinson, 2010). Therefore, there is a critical need for appropriate speech and language assessments that cater to ELLs in order to ensure that children are not under or over identified for services (Prezas, 2015), otherwise known as "disproportionality" (see National Education Association, 2007).

While a need exists to provide adequate services for all bilingual children, more data related to uncommon conditions (i.e., SM) would be beneficial. For example, clinicians may misdiagnose SM after one month (SM diagnostic criteria from the DSM-V) if they have not considered that a bilingual child's failure to speak may be due to a lack of second language knowledge or other factors (American Psychiatric Association, 2013). SLPs that have completed

assessments of bilingual children have reported a reliance on informal measures or, in some instances, assessment in English only (Arias & Friberg, 2017; Skahan, Watson, & Lof, 2007). These circumstances are improving but more information on adequate training in bilingual speech and language assessment is necessary. This paper provides an overview of SM which includes common characteristics of SM related to communication as well as factors that differentiate a silent period from SM. Conducing evidence-based, bilingual speech and language assessments with particular consideration of SM is discussed. In addition, the notion of selective stimulability for SM during the assessment process is explored. A case study involving a Spanish-speaking child with SM is offered including data related to characteristics of SM, speech and language assessment results, and data regarding the use of selective stimulability in order to make diagnostic related decisions and recommendations for intervention.

Selective Mutism and Communication

The DSM-5 provides diagnostic criteria for selective mutism (see American Psychiatric Association, 2013), which includes a failure to speak in certain situations that lasts for at least 1 month (not counting the first month of school). Although SM was initially described as a "refusal to speak" in certain situations, the more recent DSMs have described SM as a "consistent failure" to speak in specific situations, because it is now known that anxiety is the cause for such incapability, rather than the child's defiance or resistance to speaking (American Psychiatric Association, 2013; Busse & Downey, 2011). However, the aversion to speaking does not stem from a lack of knowledge or understanding of the spoken language (e.g., not a language difference). Social communication in children with SM can be significantly affected due to their failure to speak, which interferes with their academic and social functioning (Bergman, Piacentini, & McCracken, 2002; Busse & Downey, 2011; Mayworm, Dowdy, Knights, &

Rebelez, 2014). The lack of communication may lead to delayed development of higher level language and cognitive skills (McInnes & Manassis, 2005). McInnes, Fung, Manassis, Fiksenbaum, and Tannock (2004) compared the narrative abilities in both children with social phobia and children with SM. The investigators found that although children with SM had normal nonverbal cognitive and receptive language skills, they produced significantly shorter oral narratives than those with social phobia. These data suggested that expressive language deficits due to SM may negatively impact academic performance. Characteristic SM behaviors that affect expressive communication and that oftentimes manifest in the school setting include: "mutism, standing or sitting motionless and expressionless, staring into space when asked a question, heightened sensitivity to sensory input, difficulty with social routines involving expressive language, and difficulty with eye contact" (Elizalde-Utnick, 2007, p. 147).

Children with SM experience fear and social withdrawal with a temperament that is oftentimes viewed as shy (American Psychiatric Association, 2013). Symptoms may vary along a continuum from *mild*, such as whispering with specific peers, to *severe*, such as being completely nonverbal and experiencing complete non-movement (Elizalde-Utnick, 2007). Children with a *mild* or *moderate* form of SM may use nonverbal communication, such as grunting, pointing, writing, or nodding (American Psychiatric Association, 2013). In some cases, SM may have a co-occurring diagnoses with another anxiety disorder (e.g., social anxiety disorder or social phobia) as well as a speech and language disorder (American Psychiatric Association, 2013; Bergman et al., 2002; Busse & Downy, 2011; Cleator & Hand, 2001; Klein, Armstrong, Shipon-Blum, Gordon, Skira, & Lyman, 2012; Manassis, Tannock, Garland, Minde, McInnes, & Clark, 2007; McInnes & Manassis, 2005). The DSM-5 states that although communication disorders may accompany a diagnosis of SM, no particular association with a

specific communication disorder has been identified (American Psychiatric Association, 2013). In a study of 100 participants with SM conducted by Steinhausen and Juzi (1996), the investigators found that 38% of children with SM had a co-occurring speech and language disorder. In a more recent study, investigators reported that out of 146 children with SM, approximately 81% had concomitant speech and language disorders (Klein et al., 2012). Concomitant communication disorders included fluency (3%), language (25%), articulation (12%), voice (1%), and a combination of disorders (40%). In addition, Cohan et al. (2008) conducted a study comparing children with SM within three different categories: mildly anxious – oppositional, exclusively anxious, and anxious – communication delayed. The investigators found that children with a co-occurring speech/language disorder had more severe SM symptoms and displayed more anxiety than the other groups.

Differentiating SM and the "Silent Period" in ELLs

Initially, it may be challenging to determine whether a bilingual child has received adequate exposure in their second language (e.g., English) to warrant a qualification of SM. ELLs undergo various phases of language learning, including a stage of comprehension, also known as the nonverbal or "silent period," characterized by little expressive communication (Krashen, 1982; Lightbown & Spada, 2013) as well as an absence of verbal communication (Toppelberg et al., 2005). Children during a silent period primarily are observers and spend more time attuned toward second language understanding (Roseberry-McKibbin & Brice, 2000). This stage, in which children focus on comprehension and listening versus speaking, typically lasts 3 to 6 months, but may last up to a year or more. Due to similarities in a lack of verbalization, differentiating a silent period from characteristics specific to SM may be challenging. For

example, bilingual children acquire more learning in the second language with time, often requiring as many as 5 years or more for full language mastery (Kohnert & Bates, 2002).

There are two criteria for differentiating the silent period from SM: whether children are nonverbal in both of their languages and the amount of time they have been nonverbal (Elizalde-Utnick, 2007; Mayworm et al., 2014; Toppelberg et al., 2005). The silent period in second language acquisition only occurs in the language that the child has just begun to learn (e.g., English). However, the same child will continue to speak the language in which he or she is fluent (Elizalde-Utnick, 2007; Toppelberg et al., 2005). In contrast, a child with SM will not speak in either their first or second language (Elizalde-Utnick, 2007; Toppelberg et al., 2005). The duration of a child's mutism is another indicator for distinguishing between the silent period and SM. The silent period typically lasts up to 6 months. If the mutism is prolonged longer than 6 months, therefore, a child is likely experiencing SM rather than the silent period (Elizalde-Utnick, 2007; Toppelberg et al., 2005).

Data suggest that time is not the most effective marker to determine whether a child is going through a silent period or whether he or she may have SM. When a child's silent period prolongs, it is likely attributable to SM and intervention may be needed depending on the individualized needs of the child. Early intervention in children with SM has been found to improve their symptoms, and the type of treatment is not the important factor; rather, it is the presence of treatment itself (Pionek Stone, Kratochwill, Sladezcek, & Serlin, 2002). Therefore, intervention should be individualized and implemented as lack of treatment could cause SM characteristics to become more significant. If SM is suspected, waiting to rule out the silent period is not the best solution (Bergman et al., 2002; Busse & Downey, 2011; Elizalde-Utnick, 2007; Mayworm et al., 2014). Proper identification and assessment are needed so that treatment

may occur closer to the time of diagnosis, which has been found to have the largest impact on treatment effect (Klein et al., 2012).

Speech/Language Assessment and SM

Assessments of children with suspected SM often consist of an interdisciplinary team that includes a psychologist and additional personnel (Klein & Armstrong, n.d.; McInnes & Manassis, 2005; Schum, 2002). A team approach is ideal and children generally are tested in multiple areas which may include the presence of anxiety (American Psychiatric Association, 2013). Behavioral rating scales may be used during the assessment process, especially when judging the child's level of anxiety, such as the School Speech Questionnaire (Bergman et al., 2002), Selective Mutism Questionnaire (Bergman, Keller, Piacentini, & Bergman, 2008), and the Social Phobia and Anxiety Inventory for Children (Beidel, Turner, & Morris, 1995). SLPs participate on the interdisciplinary team not only to assist with the diagnosis of SM, but also to determine whether the child has concomitant speech and language deficiencies. Using both informal and formal measures, SLPs gather information related to the child's fluency, speech sounds, voice, pragmatics, functional, and receptive and expressive language. Due to the fact that children with SM generally do not speak with an unfamiliar person, SLPs often rely on non-verbal measures (e.g., receptive language) and more informal expressive tasks. Reviewing the child's medical and developmental history, in addition to conducting a hearing screening and an oral-motor examination, is beneficial in order to rule out other possible causes for the child's mutism (Klein & Armstrong, n.d.; Mayworm et al., 2014; Preston, 2014). Detailed information involving language acquisition in both languages is critical for ELL assessments involving suspected SM (Elizalde–Utnick, 2007; Toppelberg et al., 2005). Mayworm and colleagues (2014) discuss 4 important questions or "W's" of SM behavior that must be answered during the

assessment process: “where (e.g., where does the child speak and not speak?); when (e.g., when is the child more or less likely to speak?); with (e.g., with whom is the child more or less likely to speak?); what (e.g., what form of communication does the child use?” (p. 195). Moreover, when assessing ELLs, it is crucial to also assess how language impacts each of the “4 Ws” “(e.g., how does the language used in each context impact speech?)” (p. 195). A language sample taken from a video or voice recording from the home environment may be needed and is valuable in assessing a child’s language, as well as comparing behaviors seen in the child’s different environments (Cleator & Hand, 2001; Mayworm et al., 2014; McInnes et al., 2004; Toppelberg et al., 2005).

Selective Stimulability and Speech/Language Assessment

Peer-reviewed research related to assessment and intervention of children with SM exists, however, reported data remains limited. The majority of published sources are in relation to general guidelines and best practices (ASHA, n.d.). Some researchers, however, have provided valuable case information specific to assessment and intervention of SM. For example, Mayworm et al. (2014) described a case study of a child receiving intervention for SM from the perspective of a psychologist. Intervention practices were employed in four phases (Viana, Beidel, & Rabian, 2009) and included the following: (1) response initiation (building rapport through one-on-one activities); (2) contingency management (e.g., reward system for desired response); (3) shaping and stimulus fading (reinforced responses and progressive responses in more anxiety-induced environments); (4) progress monitoring plan. The investigators noted progress on intervention strategies for the child involved in the case study after 7 months of intervention, which included expressive communication in progressively more social environments (e.g., speaking to a peer in the classroom).

Rather than rely solely on non-verbal (i.e., receptive) data for speech and language assessments of children with SM, many SLPs collect valuable data from the home environment (e.g., video recording from caregiver documenting expressive language). These data assist in making the determination between a child with SM and a child in the silent period. Moreover, SLPs are able to make a more definitive decision regarding a child who may present with a true speech and language disorder versus a child with a speech/language difference. Klein, Armstrong, and Shipon-Blum (2012) conducted a study that allowed parents, under SLP supervision and after adequate parent training, to administer standardized language tests to their children with SM, resulting in a better understanding of each child's speech and language abilities. Given the relative success with SM intervention, it is plausible for some SLPs to determine how stimulable a child with SM is for expressive communication (i.e., selective stimulability). Collecting information related to stimulability is not a new concept and already is recommended for other areas of speech assessment (e.g., phonological assessment; Prezas & Hodson, 2007). In a condensed fashion that meets the assessment timeline, SM intervention strategies via selective stimulability may be considered in order to encourage a child to become non-selectively mute during an assessment. Doing so may yield verbal approximations (e.g., whisper) or more and have the potential to increase the amount of speech and language information a practitioner collects during the evaluation. Although the strategies would technically fall under SM intervention, it is important to note that they would be considered a form of stimulability and would not be "intervention" per se. Instead, borrowing the tools used in intervention may promote expressive communication for purposes of obtaining more accurate information regarding a child's speech and language abilities. These data would be used to make

diagnostic decisions related to placement in services, and may also serve as measures for prognosis of treatment.

SLPs who conduct a speech and language evaluation of a child with SM often will report that they obtain limited data related to expressive communication. In many cases, evaluation reports are incomplete with data reflecting primarily non-verbal/receptive tasks primarily (e.g., pointing to pictures, head nodding to indicate yes/no responses). In the following case study, select intervention strategies were utilized during the assessment period (following the case study model by Mayworm et al., 2014) in order to collect data regarding selective stimulability and encourage expressive communication (e.g., gestures, whispers, vocalizations) from a predominantly Spanish-speaking child who was receiving an assessment of speech and language as part of an overall assessment due to a diagnosis of SM that was later confirmed.

Case Study

The case study presented in this paper comes from data collected from an independent school district in the state of Texas. Institutional Review Board, school district, and parental consent were obtained to collect data related to the identification and assessment of monolingual Spanish and bilingual Spanish-English children in an early childhood center. These findings were utilized to improve the practice and use of screening tools and to collect normative data for a bilingual assessment tool. From the data, however, one child presented with characteristics related to SM. His teacher reported academic and expressive communication concerns. After ruling out a silent period, additional consent was obtained to complete formal testing (student was non-verbal in both languages in school and had been non-verbal in both languages not only in his current placement for 4 months but also in a former Head Start facility for 5 months prior). Comprehensive testing by an outside professional yielded a formal diagnosis of SM. The case

study of this child is provided, along with the results of speech and language testing that includes both formal and informal measures. Moreover, data related to the implementation of selective stimulability and the student's expressive responses are included.

David (a pseudonym) is a 5-year-old child who attended a Pre-K program at an early childhood center. He was born in the United States and lived with his parents and two siblings, a 12-year-old sister and an 8-year-old brother. David's parents, first generation Mexican immigrants, spoke only Spanish. Although David's parents indicated that he and his siblings occasionally spoke English, Spanish was the primary language spoken in the home environment. David attended a dual-language program and received educational instruction in the school setting following a 50/50 model (English and Spanish). Assessment data were collected through parent and teacher interviews and observations in the classroom and testing environments. Additional information related to answering the "4 Ws" as described by Shriver, Segood, and Gortmaker (2011) is provided.

SM Behavior and Communication. Although described as shy by his parents, David also was described as speaking "freely" and "openly" to members of his immediate family in the home environment. His parents reported that David is very quiet around other individuals who visit the home, including extended family (e.g., aunts and uncles), but that during those visits he does speak on occasion with limited vocabulary and shorter sentences. According to parent report, David does not speak outside of the home, which includes any public setting (e.g., playing with other children at the park, going to the grocery store). He will, on occasion, whisper in his mother's ear in a public setting.

David began Pre-K in a small dual-language classroom of approximately 15 students. According to teacher report, David is very shy in class and does not speak to the teacher, the

teacher's aide, or to peers. Although he was reported to smile more frequently in class and use gestures to communicate wants and needs (e.g. pointing to items of interest, head nodding to indicate yes/no), these forms of communication did not emerge until the second month of his Pre-K program. Based on teacher concerns and communication with David's parents, a full evaluation was requested after David had been non-verbal in the current classroom for approximately 4 months.

Evaluation Information. Formal testing was completed by a Licensed School Psychologist, Diagnostician, and a bilingual SLP. For purposes of the case study (SLP data and the notion of selective stimulability), information related to the speech-language evaluation will be provided. David passed a hearing and vision screening that was administered by a school nurse. Initially, David was observed by a bilingual SLP in the classroom for 20 minutes on three separate occasions. David remained quiet but did take cues from a peer who sat next to him. During the three observations, David did not use any verbal communication in the classroom. He was observed to nod four times and use hand gestures (i.e., waving to a classmate). When the bilingual examiner sat near David and asked him a question, two fellow peers within close proximity offered assistance and began to answer for him.

After a classroom observation period, David worked individually with a licensed bilingual SLP over a 4-day period for speech and language testing. During the first day of testing, David accompanied the SLP in the hallway and remained non-verbal, despite the SLPs attempts to engage him. Open-ended, creative play was incorporated in a one-on-one setting, following David's lead and interests; which is a recommended practice for children with suspected SM (Kotrba, 2015). Structured play, rapport building, and rewards for expressive language were incorporated to encourage response initiation (rewards for expressive language

continued for all four evaluation periods). Once the SLP engaged David in an activity of interest, he began to smile and pointed to additional objects around him. The evaluator provided adequate response time, continued verbalizing when David would not speak, and presented information/stimuli in a calm demeanor, following guidelines for the assessment of SM (ASHA, n.d.) and strategies to increase opportunities for verbal communication (Viana et al., 2009). On Day 2, David began mouthing initial sounds first, followed by words. With continued contingency management and shaping, David began whispering words/phrases and also began producing verbal speech. Table 1 provides a summary of selective stimulability techniques employed during the speech and language assessment. These data represent David's overall stimulability for verbal speech.

Table 1: Selective Stimulability in Speech/Language Assessment for David

Day of Assessment	**Technique**	**One-on-One Session (SLP)**
Day 1 (30 min.)	Response Initiation	Structured play/Build rapport Reward for expressive language (gestures/whisper OK)
Day 2 (45 min.)	Contingency Mgmt.	Mouthing initial sounds/ Words
	Shaping	Reinforcement with stickers
Day 3 (60 min.)	Contingency Mgmt.	Only whispering and/or verbal
	Shaping	Responses reinforced (verbal initial sounds/words)
Day 4 (60 min.)	Contingency Mgmt.	Only whispering and/or Verbal
	Shaping/Stimulus Fading	Responses reinforced (verbal Initial sounds/words)

Based on the data from Table 1, David was stimulable for verbal communication during the assessment with the bilingual evaluator. Although he initially whispered on Days 1 and 2, David began producing verbal speech with the evaluator on Day 3. After three, one-on-one interactions with selective stimulability strategies, David verbalized with someone who was not a member of his immediate family. As a result, the Preschool Language Scales, Fifth Edition Spanish (PLS-5 Spanish; Zimmerman, Steiner, & Pond, 2012) was administered to David. The PLS-5 Spanish analyzes auditory (receptive) and expressive communication. Pictures and objects address a variety of skills (e.g., use of prepositions, pronouns, past tense verbs). Both sections of the assessment were administered to David. Results of the formal evaluation are shown in Table 2 below, with reported information including Raw Score (RS), Standard Score (SS), Percentile Rank (PR), and corresponding Confidence Intervals (CI).

Table 2: PLS-5 Spanish Test Results for David

Language Test	RS	SS	SS CI	PR	PR CI
Auditory Comprehension	48	83	78-90	13th	7 – 25
Expressive Communication	38	81	77-87	10th	6 – 19
Total Language Score	164	80	76-87	9th	5 – 19

David demonstrated a preference for speaking in Spanish (data primarily from parent report of home interactions as well as selective stimulability data collected during the evaluation period. As a result, Spanish test items were administered first (PLS-5 Spanish administered primarily in Spanish). Any test items that were missed in Spanish were re-administered to David in English (following test instructions). David's standard scores on the PLS-5 Spanish

approximated the average range but were below average compared to other typically developing, same age Spanish-speaking and bilingual peers. Along with formal language testing, informal tasks such as structured play and story retell were incorporated to further complete language testing. Structured play and story retell were utilized in order to provide more information regarding David's ability to answer WH questions (e.g., who, what, where). During these tasks, David struggled with answering WH questions appropriately (35% accuracy). Therefore, additional informal testing was pursued.

One of the most identified means for making better predictions of language abilities in bilingual children is dynamic assessment (test-teach-retest; Patterson, Rodríguez, & Dale, 2013). Language skills in Spanish (his primary language) that were identified as deficit areas and concerns were briefly taught and re-administered to David in order to gauge whether he could improve in these areas. Children who can show improvement on specific deficit areas quickly are often identified as approximating typical development. On the other hand, children who do not show improvement on dynamic assessment tasks after instruction are often identified as having language deficits (Gutiérrez-Clellan & Peña, 2001; Peña et al., 2006). David was taught receptive and expressive language strategies that were lacking during formal assessment measures. These topics included answering WH questions (e.g., when, why), understanding complex sentences, answering questions logically, and answering questions about hypothetical events. Once strategies were taught, David was re-tested in these areas. Dynamic assessment tasks were items that were not from formal measures, different items that were taught in a mediated learning experience (MLE) approach, and were performed over two teaching sessions; following published guidelines (see Miller, Gillam, & Peña, 2001). Results of dynamic assessment revealed that David continued to struggle with language strategies that had been

lacking based on formal assessment (i.e., pretest = 10% accuracy and post-test = 15% accuracy). These data indicated that even with scaffolding within an MLE approach, David continued to struggle with language skills that were identified as deficit areas on formal measures.

Shaping and focused approximations were used successfully to complete speech sound testing. An unpublished revised version of the Assessment of Phonological Processes – Spanish (APP-S; Hodson, 1985) was used to evaluate David's phonological patterns. The assessment is designed to yield a "Total Occurrences of Major Phonological Deviations" (TOMPD; see Prezas, Hodson, & Schommer-Aikins, 2014). The closer the score is to zero, the better the results are on the assessment. David received a TOMPD score of 18 on the analysis. Based on normative data from the APP-S, 5-year-old typically developing, Spanish-speaking children have been reported to obtain a TOMPD score, on average, of 25 or lower (Prezas et al., 2014). David's noted errors were related to consonant clusters involving /r/ (i.e., deletion of /r/ when it exists with an abutting consonant in the same syllable, such as in the word "train"). However, David was able to produce most /r/ clusters correctly; indicating that his productions were generalizing. In addition, a Percentage of Consonants Correct – Revised score (PCC-R; Shriberg, Austin, Lewis, McSweeny, & Wilson, 1997) was calculated. David received a PCC-R of 93%. Based on available data, which included informal observation and parent report, David's speech sounds were determined to be developmentally appropriate for his age.

Speech and Language Summary. Despite initial hesitation and shyness, David was able to communicate verbally with the bilingual evaluator in a one-on-one setting with response initiation, contingency management, shaping, and stimulus fading strategies during the evaluation. These strategies included the use of reinforced responses (e.g., stickers, encouragement). He was stimulable, therefore, for verbal communication with these

implementations. Assessment characteristics that were observed initially included the following: slow response time; difficulty initiating verbal and non-verbal responses; lack of eye contact. However, David quickly warmed up to the examiner and spoke in complete sentences. His speech was clear and understood by the examiner (i.e., intelligible). Despite conversing with the bilingual evaluator in a one-on-one setting and having intelligible speech (e.g., no speech sound concerns), David scored below average on a formal language measure (PLS-Spanish). He presented with persistent challenges answering WH questions and completing general expressive language tasks (e.g., answering questions logically, questions about hypothetical events). These deficits were observed during informal measures that involved structured play, story retell, and dynamic assessment. David evidenced additional deficits with social language and interaction in the school setting. For example, his teacher reported that David continued to remain non-verbal in the classroom. Although selective stimulability did not encourage him to become verbal in the classroom, David did begin to speak with the bilingual SLP in the hallway of the school; following shaping and stimulus fading activities described by Viana et al. (2009). This demonstrated promise for progressive responses in more anxiety-induced environments (good prognosis for intervention). As a result of all assessment data, language services were recommended in order to target expressive language and social communication. Selective stimulability information collected during the speech and language evaluation was utilized in order to determine an appropriate direction for intervention.

Clinical Implications

Speech and language practitioners have very important decisions and questions to answer regarding whether or not to evaluate bilingual children for services. One of the first steps is determining whether or not a bilingual child is going through the silent period. This should be

considered for all bilingual children and in all areas of speech and language but is particularly critical for differentiating children with SM. Ruling out the silent period in David's case was an important factor, and criteria reported in the literature was followed (Elizalde-Utnick, 2007; Mayworm et al., 2014; Toppelberg et al., 2005). David was observed to remain nonverbal in a school setting for at least 9 months (4 months in the program of study and 5 months in a prior school program). As reported in the literature, a child is less likely to be experiencing a silent period if they are nonverbal for longer than 6 months (e.g., Elizalde-Utnick, 2007). Children in the silent period are only silent in their second language (e.g., English) but continue to communicate in their first (native) language. Based on parent and teacher report, David was silent (nonverbal) in both languages. David did not speak in either language in a school setting nor in public, which also corresponds with characteristics of SM reported in the literature (e.g., Elizalde-Utnick, 2007; Toppelberg et al., 2005). Additional SM characteristics that were noted with David were reduced expressive language and a general lack of communication. These traits are important cues for SLPs to consider when making decisions regarding bilingual children. Understanding second language acquisition, therefore, enables SLPs to differentiate SM and the silent period, especially when taking into account the languages and contexts in which the child is speaking. Moreover, in certain environments (usually outside of the home environment), children with SM typically present with anxiety, which can be noted from their demeanor as well as their lack of speech.

Once the silent period has been ruled out and general characteristics related to social communication and SM have been noted, assessments should include a thorough case history (including parent and teacher report) and additional information regarding the quality and type of receptive and expressive communication. During this process, practitioners should obtain

answers to the "4 W's of SM" (Mayworm et al., 2014) and conduct observations in the classroom setting. In the case of David (information provided in case study), a bilingual SLP collected these data and also utilized shaping and focused approximations in a one-on-one setting to gather additional data related to David's skills. The goal was to encourage participation in the form of expressive communication. Formal and informal testing data were obtainable as a direct result of these strategies (see Table 1). David became more verbal during each day of assessment (i.e., gestures, whispers, vocalizations) which allowed the bilingual SLP to complete a full speech and language evaluation. In many cases, children with SM do not participate expressively during an evaluation and practitioners receive very limited information related to a child's expressive abilities.

Deficits were noted in David's formal and informal testing, which included dynamic assessment (i.e., MLE, scaffolding; Patterson et al., 2013). Dynamic assessment revealed persistent challenges in David's expressive communication that warranted a recommendation for him to receive additional services in the school setting. SLPs are encouraged to follow guidelines for dynamic assessment for bilingual children who present with language scores on formal or informal testing that are borderline and/or questionable (Gutiérrez-Clellan & Peña, 2001; Peña et al., 2006). The use of selective stimulability in a speech/language evaluation of a child with SM also is recommended as it may yield better data related to the expressive communication potential for a child with SM. Practitioners who use selective stimulability can not only use the information for assessment purposes, but also use the data to make recommendations related to services. David responded to selective stimulability during the evaluation sessions to a point where he spoke openly with the bilingual SLP outside of a one-on-one setting (in the hallway of the school). Although children with SM may respond positively to selective stimulability and, as

a result, may complete speech-language testing verbally in a one-on-one setting, it is important to note that the children will continue to have specific needs related to social communication that need to be addressed (Viana et al., 2009). Moreover, information from familial interactions (e.g., video recording of expressive language from caregiver) may still be necessary and is recommended, if needed (Klein, Armstrong, & Shipon-Blum, 2012).

There are potential limitations to collecting data related to selective stimulability. First and foremost, every child with SM is unique. Some children may respond better to different individuals, depending on various factors (e.g., gender of clinician, case history, level of anxiety). Level of anxiety and severity of SM may additionally impact whether certain strategies are successful in a short period of time. Building rapport and making the child feel comfortable while encouraging open ended communication of all kinds (e.g., gestures, whisper) is recommended. Moreover, it is important to remember that the level and type of speech and language assessment/services a child with SM receives is directly related to their individual needs. Some children with SM may require articulation and/or language goals as well as speech goals involving structured approaches (e.g., stimulus fading) to elicit spoken communication in their non-verbal environments (e.g., school classroom). Therefore, selective stimulability data may be useful not only for determining a more adequate prognosis for therapy, but also for baseline and progress monitoring data periods. Following these guidelines will provide a more adequate analysis of a child's speech and language abilities, assist with differential diagnosis, and provide important information for determining need for services.

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