Individuals with FXS demonstrate a spectrum of speech and language strengths and weakness.

**Speech and Language Characteristics:**

**SPEECH**
- Fast rate
- Disordered rhythm
- Volume regulation
- Motor Planning issues (dyspraxia)

The above combined characteristics result in a "cluttered" quality

**ORAL MOTOR**
*Increased sensitivity* to tactile input in the mouth, intolerance for a wide variety of textures, temperatures in food
*Reduced feedback* to sensory information - stuffing mouth at meals
*Chewing* as calming and organizing strategy - clothes, toys, other objects

**LANGUAGE**
*Relative* strengths in receptive language - commensurate with nonverbal IQ score
Auditory memory, sequencing difficulties
Poor abstract reasoning skills
Expressive language skills commensurate with overall developmental age; most boys speak in whole sentences
Verbal imitative skills strong
Developed sense of humor
Difficulty responding to direct questions
Pragmatic difficulties including: poor eye contact, problems with topic maintenance, tangential comments, impulsive responses; turn taking; initiating greetings
Phrase and Topic perseveration
High use of automatic phrases
Difficulty with semantic skills as language becomes more complex and abstract
TREATMENT STRATEGY PEARLS

General Suggestions

- Take into account the unusual FXS learning style when adapting materials and in developing your interaction style
- Use a variety of sensory, routines and language based strategies to maximize learning and minimize anxiety and hyperarousal
- Consult with an OT and with parents to determine the best way to keep this anxiety and hyperarousal at a minimum
- Maintain coordination of goals between parents and all professional working with the child; try to encourage use of a traveling notebook which would contain GOALS, and specific comments related to those goals, rather than remarks such as “Jimmy did great today 😊”
- Adjust your interaction style: avoid lengthy, verbal instructions, avoid excessive talking, do not require or train eye contact
- Allow increased processing and formulation time, especially when responding to questions and following directions

Specific Suggestions

- Utilize a Hanen program to facilitate language learning at home. www.hanen.org
- For minimally verbal children-early on, try a Total Communication approach. Add augmentative communication when necessary. Some suggestions include:
  - Lamp: Words for Life - https://aacapps.com/lamp/
  - Proloquo2Go - http://www.assistiveware.com/product/proloquo2go
- Reduce direct questions – they increase social anxiety and can increase hyperarousal
  - making statements rather than questions to elicit information
  - using a "fill-in-the-blank" or "cloze" format: "For lunch at school today you had _____"
  - use self talk to model the desired response
- Model desired utterances in an attempt to reduce verbal perseveration
- Use child's interest areas in developing therapy materials, keep learning contextual
- Utilize visual supports and strategies
- Utilize the strengths in imitation – place the individual in a group of children functioning at the same, or higher level
- Utilize the sense of humor and love for dramatic to expand early developing language
- Encourage parents to attend a course such as the Hanen “It takes two to talk” program to help understand language development and to develop strategies to use at home

References:


