Learning Activities: Prader-Willi Syndrome and Angelman Syndrome

Early Signs & Differential Characteristics Sort

Objective

- Students will identify early developmental and behavioral characteristics of PWS and AS.
- Students will distinguish between syndrome-specific red flags and typical developmental variations.

Materials

- Set of symptom/feature cards (printed or digital)
- Three sorting mats: **PWS**, **AS**, and **Typical Development**
- Optional: Case study excerpts from syllabus resources

Instructions

1. Provide each group with 20–30 cards showing signs such as:
    - hypotonia
    - feeding challenges
    - hyperphagia
    - ataxic gait
    - minimal speech
    - sleep disturbance
    - happy demeanor
    - developmental plateau
    - intellectual disability
2. Students sort cards into one of the three categories.
3. Groups justify 3–5 of their placements with evidence (e.g., "This is characteristic of AS because…").
4. Whole-class debrief compares similarities/differences between PWS and AS.

Assessment

- Group justification during discussion

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- Optional written reflection on 2–3 distinguishing features between PWS & AS

Learning Activity: Constructing a Family Support Map

Objective

- Students will describe the family impact of PWS/AS and identify supports needed across home, community, and clinical settings.
- Students will apply a family-centered lens to designing supports.

Materials

- Large paper or digital canvas (Jamboard, Canva, Miro)
- Colored markers or digital sticky notes
- Handout summarizing common family challenges (sleep, feeding, behavior, safety, medical care, transitions)

Instructions

1. Students work individually or in pairs.
2. They create a **Family Support Map** with four quadrants:
    - **Medical & Behavioral Supports**
    - **Educational & Early Intervention Supports**
    - **Community & Social Supports**
    - **Family Well-Being & Respite Supports**
3. Students place concrete supports in each quadrant (e.g., “registered dietitian,” “behavior analyst,” “respite care,” “parent support groups,” “IEP team”).
4. Optional add-on: Have students choose either PWS or AS and tailor supports to their syndrome’s needs.

Assessment

- Completion of a support map with rationale
- Short written reflection on which supports are most essential and why

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Learning Activity: Intervention Planning Mini-Case

Objective

- Students will design an intervention plan for a young child with PWS or AS based on strengths, needs, and family priorities.
- Students will apply interdisciplinary and collaborative planning strategies.

Materials

- One-page mini-case for PWS (e.g., low muscle tone, feeding history, emerging behavioral rigidity)
- One-page mini-case for AS (e.g., ataxic gait, minimal speech, high social interest)
- IFSP/IEP planning template
- Roles list (OT, PT, SLP, family, special educator, nutritionist)

Instructions

1. Assign each group either a PWS or AS case.
2. Groups fill out an **IFSP/IEP mini-plan** including:
    - Priority outcomes
    - At least 3 discipline-specific strategies
    - One family-focused strategy
    - Environmental or safety considerations
    - Progress monitoring method
3. Groups present their plan to the class.
4. Instructor highlights syndrome-specific needs (e.g., food safety for PWS, AAC for AS).

Assessment

- Completed planning template
- Quality of syndrome-specific alignment in strategies

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Learning Activity: Genetics Made Simple — Visual Explanation Project

Objective

- Students will explain the genetic mechanisms of PWS and AS in clear, accessible language suitable for families.
- Students will illustrate differences between maternal vs paternal deletions, UPD, and imprinting errors.

Materials

- Chart paper or digital illustration tools
- Markers
- Simple genetics handout (e.g., chromosome 15 diagram)

Instructions

1. Students work in pairs to create a **"Family-Friendly Genetic Explainer."**
2. The visual must include:
    - A simplified chromosome 15 diagram
    - How PWS occurs
    - How AS occurs
    - A visual of "imprinting"
3. Students practice explaining their diagram to a partner acting as a family member.
4. Optional: Students create digital infographics that could be used in EI/ECSE resource packets.

Assessment

- Accuracy and clarity of explanation
- Appropriateness of language for non-specialist audiences