

Cross-Disciplinary Competency Evidence-Based Intervention Case Study Robert

Case Study	Discussion and Resources
<p>Key Indicators</p> <p>In this story, Robert, and his family, along with the IFSP team demonstrate key indicators of the cross-disciplinary early childhood practice of evidence-based intervention.</p> <p><i>Specific behaviors include:</i></p> <ul style="list-style-type: none"> • demonstrating knowledge of typical and atypical child development (including risk factors) throughout the intervention process, • using valid, reliable, nondiscriminatory procedures and instruments during the assessment process for: a) identification and eligibility, b) diagnostic evaluation, c) individual program planning, d) documentation of child progress, family outcomes, and program impact, • using evidenced-based practices when developing the intervention plan (IEP/IFSP) with others including the family, • using evidence-based practices during interventions with a child, family and/or other caregivers/teachers, • incorporating evidence-based practices across learning opportunities within the child’s home, community, and classroom, • demonstrating applications of evidenced based practices during interventions with a child and family, including the use of accommodations, modifications, and adaptations of developmentally appropriate curriculum, • implementing evidence-based assessment and intervention practices including the collection of data to make decisions and document child and family progress, • collecting data to monitor child and family progress to revise intervention plans as necessary and document evidence of intervention effectiveness. 	<p><i>The key indicators of evidence-based intervention are listed as 8 bulleted items. Highlight in the story where each of the indicators are demonstrated or operationalized. Does Robert’s story illustrate them all? Note how frequently these practices are demonstrated. Compare your findings in small groups. Is there agreement in your group that evidence-based intervention was adequately demonstrated? Why or why not?</i></p> <p>Review the ethical standards, guidelines, principles from your discipline. How do these align with other disciplines and do they support the decision process used by Robert and his team?</p> <p>Review documents from your professional association that supports the cross-disciplinary competency areas.</p> <p>How is the level of understanding about the other disciplines and their contributions measured and monitored? How does this understanding align with the WHO tenets of interprofessional practice (IPP)? The IPEC Core Competencies for Interprofessional Collaborative Practice</p> <p>What are the potential benefits of a greater understanding? What practical solutions can foster this understanding? What orientations are provided and how frequently? Who is involved in the training opportunities? How might training be adjusted based on logistical challenges such as staffing changes?</p> <p>Review information about Down Syndrome on the CDC site.</p>

Case Study	Discussion and Resources
<p>Robert and His Family and Important Adults</p> <p>Robert (3 weeks) was born full-term, weighing 6 pounds. A diagnosis of Down syndrome was given prenatally and confirmed at birth and 2 days later he went home with his family.</p> <p>Robert lives with his parents Tracey and Terrell, and his nine-year-old sister, Sara. After an uncomplicated delivery, Tracey and Terrell are looking forward to their parental leave with Robert and Sara. In three weeks, Terrell will return to work, and Tracey will stay home on unpaid leave for three more months. The family has access to needed resources, and both have well-paying full-time jobs with good benefits and health insurance. Tracey and Terrell identify as Black and their primary language is English.</p> <p>Robert’s paternal grandmother lives in the neighborhood and many friends and extended family members regularly visit. The family is also fortunate to have a strong network of friends, largely through their local church, which they attend regularly.</p> <p>As recommended during discharge from the maternity unit, the family contacted the Part C, Infants and Toddlers with Disabilities program (early intervention) in their community and requested a “general checkup of his development.” They requested suggestions for how they can help him “learn and develop as best he can.”</p>	<p>Consider how the prenatal diagnosis might have helped the family prepare for Robert’s birth. Consider what the families emotional needs might be as they process this information pre- and post-birth. How can team members create space for parents/caregivers to talk about the parts of this experience that may be really hard for them. Some things to hold in mind from parents of children with a diagnosis of Down syndrome: What Parents of a Child with Down syndrome Wished They Knew Earlier</p> <p>What medical needs need to be considered?</p> <p>Has each member of the team examined their own cultural assumptions about this family? What aspects of their story and culture do you need to consider ensuring that intervention and outcomes are equitable and relevant? What resources are available through your professional association to address the reality of unconscious bias and to support cultural responsiveness in practice?</p> <p>How are the parent concerns addressed in the team goals and interventions?</p> <p>Is there coordination between the medical and educational plan?</p> <p>Are there agencies that may offer complementary supports based on their faith or culture?</p> <p>Discuss the concept of protective factors and talk together about we mean when we talk about “resilience” for all families: Core Meanings of Protective Factors</p>
<p>Initial Evaluation / Interview</p> <p>The initial assessment took place in the family home with Tracey, Robert, and Sara present. Due to Robert’s diagnosis, an eligibility assessment was not needed. An interview and observation were used to learn about the family’s typical activities and routines and Roberts developmental needs. The family was supported to identify their priorities and concerns.</p> <p>Tracey reported that Robert was a good baby, enjoyed being held, and liked his pacifier. He was breast-fed, waking 2-3 times during the night for feeding. Tracey showed other team members some of the ways they carry</p>	<p>A child’s medical and other records may be used to establish eligibility (without conducting an evaluation of the child) under this part if those records indicate that the child’s level of functioning in one or more of the developmental areas identified in §303.21(a)(1) constitutes a developmental delay or that the child otherwise meets the criteria for an infant or toddler with a disability under §303.21.</p> <p>Discuss the family interview as a component of family centered practice.</p> <p>Procedures for assessment of the child and family.</p>

Case Study	Discussion and Resources
<p>and position Robert in his infant seat while he is awake after feeding. During the daytime, he nursed every 3 hours, napping for about 90 minutes between feedings. He liked to lie on his mother’s chest and was beginning to lift his head. The family reported that they did not experience any challenging activities since coming home from the hospital. The evaluators noted that Robert responded to his mom’s voice and alerted to sounds in the room.</p>	<ul style="list-style-type: none"> An assessment of each infant or toddler with a disability must be conducted by qualified personnel to identify the child’s unique strengths and needs and the early intervention services appropriate to meet those needs. The assessment of the child must include the following— <ul style="list-style-type: none"> A review of the results of the evaluation conducted under paragraph (b) of this section. Personal observations of the child; and The identification of the child’s needs in each of the developmental areas in §303.21(a)(1). <p>What are the components of best-practice assessment?</p> <p>What collaborative models do you most use in your assessment practices? How do you ensure the use of authentic methods of assessment? Please use the following resource to discuss and reflect: EI/ECSE Curriculum Module: Standard 4: Assessment Processes</p> <p>How might jargon support or challenge a level of shared understanding? What other language could be substituted? Discuss your suggested alternative language in a small group and refine as needed. Compare your recommended alternative language with other groups. Did you choose a similar language? Is there a glossary of terms available during team meetings?</p>
<p>Initial IFSP Meeting</p> <p>Robert was automatically eligible for early intervention (EI) services due to his diagnosis of Down syndrome. The assessment team reviewed assessment findings with the family to ensure they understood the results. The assessment team and the family worked together to develop an Individualized Family Service Plan (IFSP) that reflected the family’s desire for Robert to gain the strength needed to lift his head and begin to look around, interact, move, and play.</p> <p>Robert and his family are supported by a core team made up of the service coordinator, a special instructor (EI/ECSE), an occupational therapist (OT), physical therapist (PT), and speech language pathologist (SLP). Since the community EI program uses a team-based primary provider model for service delivery, the team identified the primary provider, responsible to interact with Robert and his family on a regular basis. This decision was determined through team coordination and collaboration in</p>	<p>How might your team frame Robert’s abilities using positive (as opposed to deficit-based) language to talk with families about within-reach developmental goals?</p> <p>Are meetings held in a location to reduce caregiver travel burdens and increase meeting accessibility for educators and parent(s)? Prioritizing the caregiver logistical needs is an indicator within family-entered practice, one of the interdisciplinary early childhood competency areas.</p> <p>If parents identify this as a challenging time, has the team used open-ended questions and active listening to acknowledge the challenges, and to co-create support around existing stressors? How are these practices vital to effective family engagement?</p> <p>What are the family goals? How does the family promote this?</p> <p>Review the training package: Developing High-Quality, Functional IFSP Outcomes and IEP Goals and rewrite</p>

Case Study	Discussion and Resources
<p>consideration of the IFSP outcomes, parent concerns and priorities, and other factors.</p> <p>After a discussion about which team member could best serve as primary provider and consideration of whether other team members were needed to help the family to achieve their goals; to plan and implement interventions; and how frequently home visits should be scheduled, the team agreed the family’s EI services would begin with the OT, as the primary provider. The team agreed that the OT would be making home visits, once every other week for one hour. The selection of a primary provider respected Tracey’s worry that multiple visitors into her home would overwhelm her, especially while the family was adjusting to life with an infant. In addition, Tracey was reassured to know that the OT had experience serving young children with a diagnosis of Down syndrome.</p>	<p>these outcomes to be more specific and measurable and participation oriented.</p> <p>Does the family have the essential services and supports necessary for overall health, growth, and development? What coordination and collaboration are necessary to secure or maintain these services during times of change or stress?</p> <p>What service delivery model is being used in your state and what elements of this story apply to your team?</p> <p>Develop some measurable IFSP outcomes that the team could use to increase the child’s growth.</p> <p>What specific strategies or activities could the team implement to facilitate accomplishment of the outcomes? Consider the family strengths to meet the outcomes.</p> <p>What is your team decision making process in determining the primary provider? What resources are utilized to support the decision making? One example is the Worksheet for Selecting the Most Likely Primary Service Provider <i>CASEtools</i>, Vol. 6, Number 3 by Dathan Rush and M’Lisa Shelden</p>
<p>IFSP Outcomes</p> <p>The IFSP contained 3 main outcomes that were to be accomplished over the next 3-6 months:</p> <ol style="list-style-type: none"> 1. Robert will participate in playtime with his sister by lifting his head when placed on his tummy and following a rattle she will shake from side to side. 2. Robert will participate in stroller walks by sitting upright with support at his hips. 3. Robert’s parents will maintain a record of developmental skill acquisition using a calendar system. 	<p>How can this progress be measured by frequency, duration, and intensity so it is evidence-based?</p> <p>Review the training document: Developing High-Quality, Functional IFSP Outcomes and IEP Goals Training Package to make sure the outcomes are written in a way to measure success.</p>
<p>Home Visits</p> <p>During the OT’s initial visits, session activities focused on helping the family address their concerns and priorities. The OT focused her visits on:</p> <ul style="list-style-type: none"> • identifying the learning opportunities within the family’s everyday activities and routines, then discussing, demonstrating, and reinforcing how and what Robert learns from these experiences, 	<p>How does this reflect family centered practice?</p> <p>How do these four goals align with all 4 of the ECPC cross-disciplinary early childhood practices?</p> <p>See the AAP systematic review of tummy time and its potential benefits.</p>

Case Study	Discussion and Resources
<ul style="list-style-type: none"> • teaching Robert’s parents individualized strategies to respond to Robert’s cues and help him engage with people and toys, • coaching parents to foster extended family members’ interaction with Robert to support his development, • monitoring Robert’s participation in learning opportunities and his performance skills according to developmental expectations, • discussing any pediatrician and other medical specialty visits and surveillance check-ups, reviewing the family’s questions and concerns. <p>The OT discussed the importance of supervised “tummy time” to help Robert develop strength and practice head control. She explained that spending time in a prone position while awake and supervised was an evidence-based approach to promote his motor development during daily activities. Tracey practiced different ways she could position Robert on her lap, on her chest, and on a blanket on the floor. During visits, parents and Sara practiced various ways to hold and position Robert and arrange toys during their floor play to promote social, cognitive, and motor development.</p> <p>Family members used these methods within their caregiving and play activities, embedding multiple opportunities to stimulate Robert’s growth and development. The OT used coaching with Tracey so she could build her child’s visual, motor, oral-motor, cognitive and social skills during their daily routines. For example, they sang songs to Robert while dressing him, moving his arms and legs in rhythm with the words, and gently spoke about what was happening during bathing.</p> <p>The OT helped the parents develop simple ways to record new things that Robert accomplished on the kitchen calendar, so they could review this data at the start of each visit, track progress over time, monitor progress to goal attainment, and adjust interventions based on the data. A developmental profile was completed through the OT’s ongoing discussions with Tracey about Robert’s performance, together with observation of his activity with Tracey during home visits. At 4 months, Robert was rated as “Developing as Expected” in social and emotional, communication and language, cognitive and physical development from information Tracey reported</p>	<p>What tummy time resources are available from your discipline specific professional association? Can you find evidence to support tummy time practices?</p> <p>APTA - (tummy time resource infographic)</p> <p>Wentz, E. E. (2017). Importance of initiating a “tummy time” intervention early in infants with down syndrome. <i>Pediatric Physical Therapy</i>, 29(1), 68-75.</p> <p>What tool does your team utilize?</p> <p>See research about functional performance in children with Down Syndrome and the role of occupational therapy</p>

Case Study	Discussion and Resources
<p>As weather warmed, the family took Robert outdoors more often. He was a socially engaged baby and the OT and Tracey discussed ways to use this strength to enhance other developmental areas. During a home visit, the OT went with Robert’s grandmother on one of her regular trips with Robert to the community playground. The OT demonstrated how to position Robert in the stroller, using a roll to provide lower trunk support, so he practiced developing sitting balance during the walk, and how to locate the stroller in the playground areas so he could listen, watch, point and vocalize to the children on play equipment. The OT provided feedback as the grandmother practiced these strategies and interacted with Robert.</p> <p>While Robert was pointing to family members when asked, saying “da da” and stringing together vowel sounds “ah,” “oh,” the family began practicing baby signs: more, eat, drink, mommy. Tracey and the OT regularly discussed whether they needed expertise from other early childhood professionals to add perspective and build the family’s confidence and competence to support Robert’s development and learning.</p>	
<p>Involvement of Other Team Members</p> <p>Tracey was very appreciative of the services provided by the OT and was developing a collaborative relationship with her. She was told by her pediatrician, however, that because Robert had a diagnosis of Down syndrome he would be delayed in all areas of development and should also be served by the PT, SLP, and a special educator (EI/ECSE). Although Tracey initially was concerned about so many people coming into her home, she wanted to follow the “doctor’s orders” and told her service coordinator to arrange for the other providers. With Tracey’s permission the team discussed the recommendations with Robert’s pediatrician and the evidence-based service delivery system used by the EI program. A follow-up meeting with Tracey was arranged and during that meeting the team developed a plan that a primary provider would continue but other disciplines would be brought in as Robert developed. The primary provider and Tracey scheduled a telephone meeting with the pediatrician to discuss the plan the team put into place and answer any questions.</p> <p>When Robert was eight months old, Tracey and Terrell requested a physical therapy consult to evaluate Robert’s physical mobility and performance and to address Tracey’s</p>	<p>How does this information contradict with the findings of the OUNCE scale that indicated that the child was meeting developmental milestones at 4 months of age? Discuss possible reasons for this contradiction and how the team could resolve them. Examples include tester error, test sensitivity, and age of testing.</p> <p>Consider that many early interventionists are trained to use a deficit-based perspective with children with disabilities, creating a press to “cure” the child of his or her diagnosis. How might this have a negative influence on the child’s developing understanding of himself in the world? Might a deficit view encourage parents to place demands on their children that may be developmentally inappropriate? Discuss experiences you may have had around setting developmentally appropriate goals. How do you support the families to advocate for their child when they are engaged with a provider using a deficit-based model?</p> <p>Review developmental charts for typical developing children and children with a diagnosis of Down syndrome. Can you identify any patterns of development? Early Intervention – Down syndrome -NDSS CDC Milestone Tracker</p>

Case Study	Discussion and Resources
<p>specific concern about whether Robert would walk “on time”. The PT attended a regularly scheduled visit with Tracey and the OT. The team discussed Robert’s developmental trajectory to date and the PT reviewed strategies to stimulate gross motor development. Tracey practiced ways to help him kneel and stand against the sofa with support. The PT shared information about gross motor milestones for children with a diagnosis of Down syndrome and explained that it would be helpful to compare Robert’s skills to those norms to understand how he was progressing.</p> <p>The PT offered feedback and wrote a report to document the consultation with recommendations for a follow-up visit in preparation for the annual review of Robert’s IFSP and to further assess his physical motor skills.</p> <p>A developmental assessment was administered at 12 months, with all domain standard scores within “average” except physical development which rated “below average.” Robert was actively playing with toys, initiating mouth/vocal games with family, waiting for another to respond, and engaging in simple turn-taking games, such as rolling a ball. He went with his parents to Sara’s weekend sports games and enjoyed trips to the grocery store. He was beginning to pull himself to stand and had increased his play in standing at the sofa and with his parents. Tracey continued to have concerns about when Robert would walk and that his ankles “rolled in” during standing. The PT shared information about research showing that treadmill training for infants with a diagnosis of Down syndrome can reduce delays in walking and might benefit Robert’s overall development as related to independent mobility. The team discussed whether treadmill training was a feasible option for Robert and his family and with permission, the PT provided Tracey the contact information of another family who used treadmill training with their child. The PT also evaluated the positioning of Robert’s feet and ankles in standing and discussed the option of acquiring flexible supramalleolar orthoses to improve his stability. The team reviewed the family’s priorities, the services and supports he is receiving and his developmental changes since initiating EI services. Because walking was a priority for the family, a PT home visit every other week was added to Robert’s IFSP.</p> <p>Following this visit an additional IFSP outcome was created. The outcome stated that Robert will walk around</p>	<p>The PT completed the Gross Motor Function Measure (GMFM) which was selected because it is validated for use with children with a diagnosis of Down syndrome. She used this tool to measure change over time. What validated tools are used by your team?</p> <p>One example tool is the Developmental Assessment of Young Children–Second Edition (DAYC-2)</p> <p>What validated tool is utilized by your team? How frequently does your system re-assess a child using standardized tools? Is the reassessment conducted based on length of service or based on age?</p> <p>Discuss the studies that indicate the benefits of treadmill training for infants with a diagnosis of Down syndrome.</p> <p>What are pediatric orthotics?</p> <p>Robert’s parents completed the MacArthur-Bates Communication Development Inventories (MCDI) and the SLP administered the Early Language Milestone Scale, 2nd edition (ELMS-2). What tools are used by the SLPs in your team? How are the findings shared?</p> <p>Findings of Expressive language on the ELMS-2 and on the MCDI indicated that there were delays as Robert should have approximately 50 words and be putting words together. Review typical speech and language milestones</p> <p>Which activities available for infants and toddlers in your area are inclusive? What kind of supports do you think a community-based instructor would benefit from to include children with disabilities?</p>

Case Study	Discussion and Resources
<p>the house by himself so that he can become more independent in his play. The PT introduced a child-sized treadmill and taught Robert’s parents how to safely use the treadmill daily to promote walking.</p> <p>At 16 months, the SLP re-assessed Robert’s communication. Robert understood and used gestures as expected for his age. Robert’s babbling and jargoning, however, were delayed and he did not yet use words. At 18 months, Robert began using 5 words consistently, but intelligibility was limited with few consonant/ vowel combinations that could be understood.</p> <p>Tracey was interested in exploring group activities for Robert so he could start meeting some children his age. The team told her that the special instructor conducted a community-based playgroup at their neighborhood library. The group was open to all children under the age of three and families could just drop in. As attending a variety of different developmentally appropriate activities helps young children to learn through different experiences, the team also shared information on community music and creative movement classes sponsored by the recreation department.</p>	

<p>Additional Discussion Questions:</p> <ol style="list-style-type: none"> 1. Robert has a diagnosis of Down syndrome that may result in overall developmental delays. Describe how to address the pediatrician’s concern that Robert, based on his diagnosis should receive services from a variety of service providers? 2. Robert’s team decided upon a primary provider model. Using evidence from the literature and disciplinary position statements, defend the system that Robert’s team created? 3. Discuss the advantages and disadvantages of Robert attending a neighborhood play group. 4. Explain what service delivery model is used in your state and how it aligns with billing and other logistics needed to support providers. How does the team collaborate and coordinate services for families when children have needs in many areas of development? 5. Identify the evidence to support the strategies discussed in Robert’s story. 6. Count the number of evidence-based practices instituted throughout this story and discuss and compare findings in small groups.
