

The Role of Unidimensional, Multidimensional, and Complex Family Cases in an Interprofessional Early Intervention/Education Graduate Program

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Abstract

Project TransTeam is an interprofessional program that has prepared graduate students representing multiple disciplines for over 20 years to serve as members of transdisciplinary teams in early intervention/education. The program has utilized a case-based approach, which has evolved and been refined to a systematic, three-tiered approach that moves through a unidimensional, multidimensional, and complex case progression. This article describes how Project TransTeam has developed a case approach in which teams of students address unidimensional, multidimensional and complex cases to learn about intersectionality, hybrid families, and other family structures and learn team processes to function effectively as members of transdisciplinary teams.

Key words: *interprofessional, transdisciplinary, teamwork, case-based approach, intersectionality, hybrid families, personnel preparation*

Interprofessional programs in higher education designed to prepare personnel representing multiple disciplines to serve early intervention (EI) and early childhood special education (ECSE) populations are critical to building a high-quality workforce (Bruder, 2016; Stayton, 2015). For over 20 years, the University of Alabama at Birmingham (UAB) has implemented an interprofessional early intervention/early childhood special education program to prepare professionals representing early childhood special education, occupational therapy, physical therapy, and other disciplines such as nursing and speech-language pathology to collaboratively provide services for young children with disabilities and their families (Aldridge et al., 2015; Kilgo, 2006a; Kilgo et al., 2014; Kilgo et al., 2017; Kilgo et al., 2019; Kilgo et al., 2020). This interprofessional program is based on a transdisciplinary teaming model and is referred to as Project TransTeam. "Transdisciplinary teamwork...involves team members who perform tasks collaboratively by sharing information and roles. Mutually agreed-upon goals/outcomes are developed, and information, knowledge, and skills are transferred across disciplinary boundaries" (Kilgo, 2006b, p. 7).

A hallmark of this interprofessional graduate program is a case-based approach to learning about and incorporating developmentally and culturally appropriate practices in early intervention and early childhood special education (Kilgo et al., 2020). Over the past 20 years, the utilization of cases has been refined to reflect the learning needs of graduate students and implement a systematic, three-tiered approach to cases that moves through a unidimensional, multidimensional, and complex case progression. The purpose of this article is to describe the use of unidimensional, multidimensional and complex cases as graduate students move from interacting with simple cases to multidimensional problems involving intersectionality, hybrid families and other family structures to complex cases as they experience intercultural communication and culminating field experiences (Aldridge et al., 2015; Kilgo et al., 2019; Kilgo et al., 2020).

Unidimensional Cases

Early intervention and early childhood special education are family focused. The transdisciplinary team must develop outcomes/goals with the family that are family based. This often becomes challenging due to variety of reasons. All professionals who work in early intervention and early childhood special education are faced with multifaceted family outcomes/goals along with other challenges daily that must be addressed. When we first executed a case-based approach to family cases, we were eager for students to dive into the complex issues they would face and to work collaboratively with faculty and other professionals to solve these challenges. Students became overwhelmed and frustrated quickly when multiple issues were presented in family

cases. We eventually realized that for graduate students to achieve the goal of solving complex problems, they would need to begin with unidimensional cases before moving toward more difficult ones.

Unidimensional cases are the first tier in our three-tiered approach to cases in the interprofessional early intervention/education graduate program. Unidimensional cases are those that focus on only one aspect of family diversity such as family structures, religious diversity, or ethnic diversity. The following are examples of unidimensional cases we use that focus on just one area of family diversity.

Family Structures

Your team is working with a family in which there is a joint custody, where the father has the child for a week and the mother has her for the next week. Each parent's goals for the child are contradictory and each parent does NOT want the team to work on the goals of the other parent. What would your team do?

Religious Diversity

A family is part of a charismatic Catholic community. The major goal for their child with arthrogyriposis is to take him to a sacred place in Mexico for healing. How would your team work with the family on goals for the child?

Ethnic Diversity

Your team is working with a family from Japan. The family is highly resistant to meeting in the home. How (and where) would the team work with the child and family? Why?

Of course, families face many challenges and issues simultaneously, and are more multifaceted than these unidimensional cases represent. After graduate students in the interprofessional early intervention/education program have collaboratively attempted to address the issues in unidimensional cases, multidimensional cases are used to deepen and broaden their abilities to work with multifaceted families.

Multidimensional Cases

The second tier in the three-tiered approach involves multidimensional cases. How are multidimensional family cases different from unidimensional ones? While it is impossible to prepare students in the program for every family situation or challenge they will face, there are two major entities that can be addressed that promote multidimensional understanding. These include intersectionality and hybrid families. Intersectionality and hybrid families are consistently infused into the multidimensional cases for problems solving.

Intersectionality

Individuals within families often have multiple identities and individuals may be privileged or experience discrimination because of these multiple references and intersections. Kimberle Crenshaw (1991) called this intersectionality. Intersectionality is a framework for understanding how aspects of an individual's social and political identities and inequalities merge to create various forms of discrimination and privilege. Examples of these aspects of identity include physical appearance, [dis]ability, religion, sexuality, class, race, and gender. As a framework, intersectionality helps identify and understand multiple factors of advantage or empowerment and disadvantage or oppression for certain populations. For example, a lesbian may be discriminated against by a particular business due to the intersection between her sexuality and gender. The business may not discriminate against women or gay men; however, the combination of these two factors, being a woman and a lesbian, may be the cause of her marginalization or discrimination.

In early intervention/education, we recognize that each category of a child's inequalities (e.g., [dis]ability, race, gender) place them at higher risk for discrimination or oppression. Therefore, intersectionality is viewed as the process of integrating the diverse components of each child's identity to understand how to support them and their family most effectively. The recognition that each child has multiple characteristics, only one of which may be a disability, is a major advancement that has tremendously shaped how we provide services for and support to individual children and families.

Hybrid Families

Professionals who work in early intervention/education may experience interactions with blended families, as depicted on the TV show, *The Brady Bunch*. In the series, both parents had children from previous marriages but did not have children of their own. However, even if they had children of their own, *The Brady*

Bunch would have still been a blended family. Hybrid families are different from blended families. “Hybrid families have, produce, or experience more than one culture OR one or more additional dimensions of diversity beyond blended families” (Aldridge et al., 2016, p. 140). Kamala Harris, the Vice President of the United States, is an example of someone who comes from a hybrid family. Her mother, Shyamala Gopalan, came to the United States from India in 1958. Her father, Donald J. Harris, came to the U.S. from Jamaica in 1961. Kamala and her sister attended an African American church and sang in the choir, and also went with their mother to a nearby Hindu temple. She is married to Doug Emhoff, born in Brooklyn to parents of Jewish heritage. Harris also is an example of intersectionality, as a woman who is biracial and identifies as African American.

The following are examples of multidimensional cases used in the program. The first case is an example of intersectionality.

Nam-Joon

- *Amy is a single mother from Korea who is not yet documented, her husband was recently deported to Korea, and her family is in poverty.*
- *Her only child, Nam-Joon, is a 4-year-old who attends as public pre-kindergarten class.*
- *Nam-Joon has spina bifida. However, the lesion is low enough that Nam-Joon has some feeling in his lower extremities and will be able to move toward independent mobility.*
- *The preschool teacher is “exasperated” with Amy because she is in the classroom most of the time. She breastfeeds Nam-Joon in front of the other children and insists on doing as much for Nam-Joon as possible.*
- *In discussions with the team, Amy indicates that her goal for Nam-Joon is to “take care of all of his needs.” She believes she is being punished for her past sins and believes it is her lot in life to take care of Nam-Joon.*
- *Because her husband was deported to Korea, Amy is fearful, paranoid, and suspicious of team members and is afraid they want to take Nam-Joon away from her, which exacerbates the issue.*
- *How would your team address this situation?*

The next multidimensional case involves a hybrid family. Teams of students from different disciplines have opportunities practice problem solving with a variety of cases representing hybrid families such as the one that follows.

Jake

- *Melissa, an African American, and Melanie, a Caucasian American, are a lesbian couple living in rural Louisiana.*
- *They have two children, Jake, age 5, and Laura, age 7, who attend the public schools of their Louisiana Parrish.*
- *Jake is developmentally delayed and receives special education services in an inclusive preschool setting.*
- *Jake is the biological son of Melissa while Laura is the biological daughter of Melanie. However, genetically, the children are half brother and sister because their mothers’ artificial inseminations were from the same sperm donor, who was African American. This means that Jake is African American like his mother, but Laura is bi-racial.*
- *Melissa and Melanie live 30 miles away from where their parents dwell in the next Parrish. Melissa and Melanie chose to live in rural Louisiana because of the support they receive from their families. However, due to the culture of the small community in which they live, they have decided to remain private about the nature of their relationship and family.*
- *The first week of school, each class is doing a week of “introductions” called My Family. Given these circumstances, what would your team do?*

Complex Cases

After students have had extensive practice with unidimensional and multidimensional cases, the third tier is introduced—complex cases. Complex cases are different in three salient ways from multidimensional cases. First, students are required to (a) engage in intercultural communication with professional mentors; (b) work with professionals from other disciplines to address a comprehensive, in-depth family case for an entire semester; and (c) demonstrate their ability to work with complex cases through their culminating graduate internship and field experiences. Each of these will be described briefly.

Experiencing Intercultural Communication with Professional Mentors

Intercultural education and communication are an integral part of developing, utilizing, and understanding complex cases in early intervention/education. Intercultural education is defined as “a deep engagement with diverse cultures and worldviews to enrich children and the society, rather than the celebrations of differences and to coexistence of various cultural groups” (Miller & Petriwskyz, 2013, p. 253). The key to intercultural education and communication is deep engagement. Intercultural communication goes well beyond superficial notions of multicultural education in which “tour” and “detour” approaches to cultures are used to address culture in inadequate and superficial ways (Aldridge et al., 2000; Kirylo & Aldridge, 2019).

Participants in the interprofessional early intervention/education program engage in intercultural education and communication through direct interactions with facilitators and a diverse cadre of mentors. The following is one example.

Students work in designated teams comprised of students representing at least three disciplines to address the following issue.

One of the family goals requested by a parent for her two-year-old daughter with mild cerebral palsy is “eating during mealtime.” To assist with this goal, what information does the team need to know. What recommendations does the team have for the parent?

Class discussions of this vignette usually center around foods, developmental needs, and cerebral palsy, but rarely consider the familial or cultural contexts of the family. To address this, the participants are provided opportunities to interact with facilitators from specific cultural milieus to better facilitate the family. Specifically, they may have facilitators from Brazil, China, and Kuwait to describe cultural differences in meal expectations. In Brazil, some families prefer their children to use utensils for everything, include foods such as pizza. In China, many families prefer to eat with chopsticks, and in some Kuwaiti homes, children are expected to eat with their fingers, including rice, without the use or help of any implement. Through these interactions the graduate students revisit the case of the family with the two-year-old daughter with cerebral palsy and reconsider how to address cultural issues that may influence family goals in early intervention.

Throughout the third tier, students continually work with facilitators and mentors using intercultural communication and are required to do research on their own to better determine the needs of families’ specific cultural practices, guarding against stereotyping or making assumptions. Intercultural communication through family involvement is emphasized and students learn appropriate ways to determine families’ needs and practices through these interactions.

Collaborative Problem Solving Around a Complex Family Case

From the onset of the Project TransTeam graduate program, students move from unidimensional cases through multidimensional cases for problem solving and are now ready for an in-depth study of complex cases. During the complex cases phase of the program, students must work in teams for an entire semester on one in-depth, complex case to present to other teams and explain how they determined the evidence-based interventions they chose with the family to address their case. Here is one example of a complex case that is used in the program.

Ashlynn

- *Ashlynn is a 22-month-old female.*

- *She was born at 30 weeks gestation to a single mother with phenylketonuria (PKU), which is an inborn error of metabolism that, if untreated, can lead to intellectual disability, seizures, mental disorders, etc.*
- *Ashlynn's birth mother was not taking meds for PKU during pregnancy.*
- *Ashlynn's birth weight was 2 lbs. 14 oz., length 15 in., and bilateral club feet were noted at birth.*
- *She was Transferred immediately after birth to Children's Hospital Neonatal Intensive Care Unit.*
- *Ashlynn's hospital course included ventilatory support for 4 days followed by oxygen for 5 weeks.*
- *After 2 months in Children's Hospital, Ashlynn was discharged home, did not require supplemental oxygen, and was able to take a bottle to meet nutritional needs.*
- *Corrective foot surgery was performed 4 ½ months after birth and Ashlynn was discharged to home with prescriptive shoes with a bar attachment.*
- *Ashlynn was placed in foster care by the Department of Human Resources (DHR) when she was 18 months old due to concerns of mother's lack of ability to meet Ashlynn's needs (i.e., failure to thrive, delayed development, and lack of follow through with orthopedic care).*
- *Ashlynn's foster parents are in their early 40s and have no children of their own. It is apparent that they love Ashlynn and want to provide good care for her.*
- *Ashlynn's foster parents live in small rural town in a southern state in the U.S. Ashlynn's dad has a good job with a construction company that requires him to be away from home at times for several days. His mother has lived with them for the past 6 months since having a stroke. Ashlynn's mom has worked in the past as a receptionist/book keeper for a small business in the nearby town, but she stopped working when her mother-in-law became ill.*
- *The family owns their home which is in good condition, nicely furnished, and of adequate size for their expanded needs.*
- *Concerns include Ashlynn's hearing and vision, developmental status, decreased head circumference, nutritional status, and club feet.*
- *Ashlynn can roll over and she can sit unsupported for a brief time when placed in sitting but is unable to catch herself when she begins to fall. She can prop on elbows when she is in prone but prefers to be supine. She is unable to take weight on her legs when placed in supported standing. She can grasp toys and is inconsistent in responding to toys. She continues to drink formula from a bottle and has recently begun eating baby cereal and fruits but seems to choke or gag when foods with more texture are introduced.*
- *Issues to be addressed:*
 - *The foster mom is concerned about Ashlynn's health, particularly feeding, her feet, and lack of interest in toys.*
 - *The foster parents want to do all that they can for Ashlynn, but having never had children before, they are concerned that they may not do everything they should or might miss something important. They are especially concerned about all areas of development. Ashlynn's foster mom seems overwhelmed at times.*
- *The birth mother is to have supervised visits (by DHR) with Ashlynn every 2 weeks. To date, the mother has missed at least 3 visits without notifying DHR.*

Demonstrating an ability to work with complex cases through field experiences

All students from every profession in the interprofessional early intervention/education graduate program, Project TransTeam, must demonstrate an ability to work effectively with young children and their families. The final field experiences are a culmination of case-based learning in which students demonstrate their in-depth knowledge learned throughout the program. Exit data from the program indicate(s) that students and supervisors are confident that candidates are able to solve complex problems they were not able to address when they entered the program. The following is an example of exit data comments from a Project TransTeam graduate student representing occupational therapy:

We were prepared to implement a transdisciplinary model by working with team members representing different disciplines. We learned from each other, developed team-based goals, determined appropriate interventions, and found the best available evidence as a team. The team assignments allowed us to put

trust in each other and to effectively communicate, problem solve, and sometimes compromise to work through our complex case studies, which is what working as a transdisciplinary team requires.

A systematic approach to case-based learning is necessary for students to navigate from simple unidimensional cases through multidimensional cases before attempting the complex cases they will face in their future employment. Students need a substantial understanding of intersectionality, hybrid families as well as other family configurations, and intercultural communication to be vital, knowledgeable, and contributing members of an early intervention/education team. While the faculty members continue to develop and refine the program, these components remain constant in our quest to educate professionals to work as a transdisciplinary team in early intervention and early childhood settings.

References

- i Aldridge, J., Calhoun, C., & Aman, R. (2000). 15 misconceptions about multicultural education. *ACEI Focus on Elementary*, 12, 1-6.
- ii Aldridge, J., Kilgo, J., & Bruton, A. K. (2015). Transforming transdisciplinary early intervention and early childhood special education through intercultural education. *International Journal of Early Childhood Special Education*, 7(2), 343-360.
- iii Aldridge, J., Kilgo, J., & Bruton, A. K. (2016). Beyond the Brady Bunch: Hybrid families and their evolving relationships with early childhood education. *Childhood Education*, 92(2),140-148.
- iv Bruder, M. B. (2016). Personnel development practices in early childhood intervention. In B. Reichow, B. Boyd, E. Barton, & S. Odom (Eds.), *Handbook of early childhood special education* (pp. 289-333). Springer.
- v Crenshaw, K. (1991). Mapping the margins: Intersectionality, identity politics, and violence against women of color. *Stanford Law Review*, 43(6), 1241-1299.
- vi Kilgo, J. (2006a) (Ed). Transdisciplinary teaming in early intervention/early childhood special education: Navigating together with children and families. *Association for Childhood Education International*.
- vii Kilgo, J., (2006b). Preface. In *Transdisciplinary teaming in early intervention/early childhood special education: Navigating together with children and families* (p. 7). *Association for Childhood Education International*.
- viii Kilgo, J., Aldridge, J., Vogtle, L., & Ronilo, W. (2014). Using family cases with graduate students through transdisciplinary graduate education. *International Journal of Case Studies*, 3(9), 22-26.
- ix Kilgo, J., Aldridge, J., Vogtle, L., & Ronilo, W. (2017). Teaming, collaboration, and case-based learning: A transdisciplinary approach in early intervention/education. *International Journal of Case Studies*, 6(6), 7-12.
- x Kilgo, J., Vogtle, L., Aldridge, J., & Ronilo, W. (2019). The power of teams: Time to move forward in interprofessional personnel preparation. In *DEC Monograph Series 6: Teaming and collaboration: Building and sustaining partnerships* (pp. 121-134). Division for Early Childhood.
- xi Kilgo, J., Aldridge, J., Vogtle, L., & Ronilo, W. (2020). A team approach for implementing developmentally appropriate practices in an inclusive preschool classroom. *International Journal of Case Studies*, 9(4), 41-44.
- xii Kirylo, J., & Aldridge, J. (2019). *A turning point in teacher education: A time for resistance, reflection, and change*. Rowman & Littlefield.
- xiii Miller, M., & Petriwskyj, A. (2013). New directions in intercultural early education in Australia. *International Journal of Early Childhood*, 45(2), 251-266.
- xiv Stayton, V. (2015). Preparation of early childhood special educators for inclusive and interdisciplinary settings. *Infants and Young Children*, 15(28), 113-122.