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Transition Discoveries: Participatory Action Research to Design Pathways to Success

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Abstract

A multiyear critical participatory action research study was conducted with a total of 503 youth and young adults with disabilities (ages 14–25), family members, and transition stakeholders across the U.S. commonwealth of Pennsylvania. Youth and young adults with disabilities, families, and stakeholders served as participant researchers who collaborated in operationalizing post-school outcomes and the high-quality transition practices, resources, services, and supports that contribute to achieving them. As a result of this study, the Transition Discoveries Quality Indicator Framework was developed. We provide examples of how the content of this framework can be used to design experiences for youth and families to learn about transition planning, programs, and services. Guidelines for ecologically relevant research and implications for practice in secondary transition are provided.

Keywords

qualitative, focus groups, families, communities, post-school outcomes, high school

In many ways, successfully navigating changes in opportunities and supports from school to adult life can be conceptualized as ongoing interactions with a multiplicity of factors, systems, and contexts, those of which have direct or indirect influence on the knowledge, skills, goals, and opportunities of youth and young adults with disabilities (Trainor et al., 2020). The transition may be traditionally conceptualized as the conclusion of access to entitlement-based systems (e.g., special education and transition planning) and the beginning interactions with those that are eligibility-based (e.g., vocational rehabilitation). However, there are many other groups of interrelated factors and entities (e.g., special education services and supports and family and community relationships), which in conjunction with these two systems, form strongly interdependent subecological structures. The structures include the microsystem, mesosystem, exosystem, and macrosystem, all of which change over time (Bronfenbrenner, 1994). In this nested ecology of influence on a young person's trajectory toward achieving their post-school goals, the microsystem (the center) represents a transition-age youth's proximal environment of direct interactions with family, friends, caretakers, and transition stakeholders (e.g., school and agency staff). The mesosystem involves the network of interactions, or mutual interrelationships, between factors at the microsystem level that impact a young person (Bronfenbrenner, 1994). An example might be a collaboration between their family and the school or staff. Moving outward to the exosystem, there exist collaborative efforts between schools, districts, agencies, and community partners that often happen outside the control of youth and families but have direct implications for the transition-related opportunities and services that they can access. Importantly, youth and families may also interact directly with a variety of exosystem level partners, such as health and human services, occupational vocational rehabilitation, intellectual disability systems, or centers for independent living (Trainor et al., 2020). Finally, the provision of transition at the exosystem level (community, state and local government, school system, child/adult serving agencies, and interdisciplinary professions) continues to adapt to changes in policy by the U.S. federal government (i.e., macrosystem level).

Systematic reviews of correlational studies (Mazzotti et al., 2016, 2021) have identified numerous relationships between post-school outcomes and in-school factors, such as instruction, components of programmatic design, and the provision of specific services. The impact of identifying these relationships, known as predictors, continues to represent a significant advancement in the field's efforts to

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design and implement empirically rigorous models of transition practice. However, the necessity of dichotomous or categorical variables in predictive analyses that generate support for these models also isolates the predictor from a profile of descriptive information on how effective practices vary in their implementation across contexts. In response, there have been significant efforts to engage stakeholders in operationalizing these predictors in language that facilitates the implementation and improvement in practices by professionals (Rowe et al., 2015). However, no such work has been undertaken by youth and families to operationalize predictors of post-school success.

Youth and family involvement in transition planning is mandated by the Individuals with Disabilities Education Improvement Act of 2004 and their positive impacts on post-school outcomes are supported by a growing body of literature. Importantly, youth involvement in transition is a research-based predictor of both postsecondary attainment and employment and a promising predictor for independent living (Mazzotti et al., 2021). At the same time, family engagement is a research-based predictor of post-school employment for youth and young adults with disabilities (Mazzotti et al., 2021). Therefore, as their involvement continues and expands, the "convergence of, or consistency among, evidence from multiple and varied data sources" (Brantlinger et al., 2005, p. 201) may be of particular salience in efforts to construct contextualized definitions of effective practices. This may be particularly true, given the prevalence of person-and-family-directed planning, which prioritizes youth and young adults and their families as decision makers regarding the design of activities and services to support their individualized transition goals (Hagner et al., 2012; Shogren et al., 2017).

While the attendance of families of students with disabilities in transition planning has increased over time (Lipscomb et al., 2017), a metasynthesis of qualitative studies on family perceptions of barriers to involvement in their young person's transition has identified a lack of access to relevant and comprehendible information about transition as a potential contributing school-level factor (Hirano et al., 2018). Experimental studies on efforts to increase parent knowledge about transition (Francis et al., 2013; Rowe & Test, 2010) have not resulted in specific field-based strategies to address continued gaps in knowledge of and access to transition information that parents of students with disabilities experience (Hirano et al., 2018), particularly those who are culturally and economically diverse (Wagner et al., 2014). The characteristics of effective parent training have included detailed explanations of transition-specific terms and concepts in relatable and contextually relevant language (Young et al., 2016). At the same time, researchers have shown the efficacy of parents as knowledge brokers about effective transition practices and programs for their young persons (Morrison et al., 2009). Therefore, it is reasonable to consider that involving parents in the development of definitions for effective practices, programs, and services may support the reduction of knowledge-based barriers to their engagement.

Critical Participatory Action Research (CPAR) may be considered as a means to generate supplemental criteria for evidence-based predictors that elevate the voices of youth and young adults with disabilities and families into dominant, professional narratives about effective practices while providing them with knowledge needed to be decision makers in the transition planning process. A small but important body of qualitative, participatory research has begun to highlight how families and youth and young adults conceptualize their goals for transition to adult life, as well as successful strategies and supports that they feel support their goal attainment (Hogansen et al., 2008; Morrison et al., 2009; Powers et al., 2018). Through this work, evidence suggests that youth and young adults with disabilities and their families conceptualize person-centered mentorship, coaching, experiential learning as well as peer support, self-awareness, and self-determination skills as important factors in reaching their goals for adult life. These strategies are supported by current literature to define evidence-based practices and predictors for positive post-school outcomes (Mazzotti et al., 2021; Rowe et al., 2021). However, there remains a lack of participatory research to explain how youth and young adults with disabilities and their families conceptualize the many other EBPs that exist in current models of effective transition. At the same time, given persistent disparities in post-school outcomes, additional participatory research with youth and families may also serve to help the field develop holistic models of post-school success (Trainor et al., 2020).

It appears that what remains to be clarified are rigorous qualitative, participatory approaches in which stakeholders can augment existing data sources by drawing upon the contextual knowledge and experience about *what works in transition* that is held by individuals (youth and young adults, families, and stakeholders) and dispersed across networks of families, schools, agencies, and communities. Therefore, the purpose of this study was to employ CPAR and rigorous qualitative methods to support youth, families, and stakeholders in co-defining post-school outcomes and, more importantly, the effective transition practices, programs, and services that lead to those outcomes. As such, the following research questions guided this study:

Research Question 1 (RQ1): How do youth and young adults with disabilities and families describe their dreams and goals for a successful transition to life after high school?

Research Question 2 (RQ2): How do youth and young adults with disabilities, families, and transition stakeholders across schools, agencies, and community partners describe successful practices, supports, services, and programs for transition to adulthood?

By gathering evidence to answer these questions, this study intended to collaborate with youth, family members, and stakeholder researchers to cocreate a framework that describes high-quality transition.

Method

Participants

In accordance with the research plan approved by the Institutional Review Board, a total of 503 participants provided data for this study across two phases with 88 individuals participating in the *Dreams and Goals* focus groups (Phase 1), and 415 participating in the *What's Working: Successful Transition Practices* focus groups (Phase 2). During Phase 1, 40 participants were youth and young adults with disabilities, and 48 were family members. During Phase 2, 79 participants included youth and young adults with disabilities, 44 parents of youth and young adults with disabilities, and 292 transition stakeholders. This information was gathered via sign-in sheets at each focus group session. Members of this study's advisory board expressed their position that operationalizing socially constructed phenomenon, such as disability (e.g., Dirth & Adams, 2019) and race/ethnicity (Bonilla-Silva & Zuberi, 2008) as either dichotomous (e.g., "Do you have _____" / "Are you _____"—yes/no) or categorical (e.g., selecting from a pre-determined list) has the potential to essentialize and, therefore, devalue the ecologically mediated identities of the individuals (Kramer et al., 2012). Therefore, such information was not explicitly collected. However, the university staff on the research team employed *emergent* and a priori descriptive coding across all focus group transcripts to identify demographic information for race, ethnicity, and socioeconomic status of the participants in this study. A priori codes for race consisted of the U.S. Office of Management and Budget (OMB)'s five categories for race and their respective definitions (White, Black or African American, American Indian or Alaskan Native, Asian, and Native Hawaiian or Other Pacific Islander). Upon data saturation, of the youth, families, and stakeholders who referenced their race, ethnicity, and/or socioeconomic status (SES), the coding matrix suggested that the majority were White middle-class, followed by African American middle-class and low-SES, Latin/Hispanic middle-class and low-SES, and Asian middle-class. However, transcripts for urban areas within the eastern and western part of the state that were part of targeted outreach in communities of color predominantly represented African American or Latin youth, families, and stakeholders from low-SES backgrounds. In addition, transcripts were coded for the professional roles of stakeholders, which suggested representation from secondary educators, advocates, agency administrators, vocational rehabilitation professionals, business/employers, Career and Technical Education teachers, workforce development staff, higher education professionals, independent living staff, job coaches, local and state government officials, health services workers, occupational therapists, state developmental disabilities/intellectual disability program staff, and paraprofessionals working with transition-age youth and young adults with disabilities.

Advisory board. This study included the purposeful recruitment of key stakeholders to form an advisory board. This included youth and young adults with disabilities and their chosen family members as well as representatives from education, employment, health, housing, independent living, faith communities, and others directly involved in the transition process. In total, 26 members were recruited through both email and phone calls by the study team (purposeful) and members on the board itself (snowballing). The youth and young adults with disabilities ($N = 10$) self-identified themselves as having an autism spectrum disorder ($n = 5$), Down's syndrome ($n = 1$), physical disabilities ($n = 2$), and developmental disabilities ($n = 2$). Six of the seven parent participants on the advisory board self-identified as having transition-age youth and young adults with disabilities, including an autism spectrum disorder ($n = 4$) and Down's syndrome ($n = 1$), while others did not disclose their child's disability ($n = 2$). Parents also self-reported having professional roles as transition stakeholders with autism advocacy groups ($n = 1$), centers for independent living ($n = 1$), employment coalitions ($n = 1$), and special education transition technical assistance providers ($n = 1$). All of these parents also self-identified their primary role as being a parent. Fourteen board members identified themselves as transition professionals working within the following organizations: vocational rehabilitation ($n = 4$), Autism services ($n = 1$), advocacy groups for individuals with intellectual disability ($n = 2$), youth leadership groups ($n = 2$), parent information and training centers ($n = 1$), county-level mental health services ($n = 1$), and state developmental disability agency ($n = 2$). It is important to note that the advisory board was disproportionally comprised of transition stakeholders, specifically those working at the state level. In total, there were four more stakeholders than youth and young adults. There were also seven more stakeholders than there were family members on the advisory board. The inclusion of these additional state-level stakeholders was necessary for gaining access to the school system and to youth and young adults and families who had already graduated high school.

Youth and families as coresearchers. In this study, focus groups for youth and young adults with disabilities to identify their dreams, goals, and what works in transition were facilitated by youth and young adults with and without disabilities from the Pennsylvania Youth Leadership Network (PYLN). The PLYN members who served as researchers

were (a) between the ages of 20 and 35, (b) represented a broad range of physical and psychosocial disabilities, and/or (c) served as allies with significant personal experience living and/or working with individuals with disabilities. Family focus groups were facilitated by family members. Stakeholder focus groups were facilitated by stakeholders on our research team. Facilitators were trained by university research staff on how to utilize a standardized protocol for the focus groups, as well as person-centered planning strategies to empower participants and engage them in a way that supported their authentic participation and responses. In addition, all focus group facilitators completed the National Institute of Health (NIH), Office of Extramural Research web-based training course "Protecting Human Research Participants" that ensured their practical understanding of conducting research with a broad range of youth and adults, including those from diverse or disparate backgrounds.

Theoretical Foundations

This study utilized CPAR as both methodology and epistemology (Fine & Torre, 2019) in that youth and young adults, family members, and stakeholders are viewed as a primary generative source (Morrison et al., 2009) of knowledge about successful transition practices. In applying CPAR, this study embodied the position that research should be designed in such a way that these individuals are provided equitable opportunities to counter theorize about their lived experiences. In addition, this study was theoretically situated within a critical disability paradigm with the understanding that there exists a socially mediated process of disenfranchisement for persons with disabilities and that constructions of normative ability are not embodied but rather hegemonic mechanisms of power that can be upended through the critical participation of persons with disabilities (Dirth & Adams, 2019). As such, this study was founded on the core tenets of CPAR: (a) participant-directed research to enable action through iterative reflection; (b) cognizance of power relationships where power is equally and equitably owned among researchers and participants who serve in research roles of the same capacity (Kemmis et al., 2014); and (c) removing barriers to authentic participation so that all individuals are able to share their firsthand experiences (Baum, 2006). With explicit attention to the internal consistency of the application of this theory for this study, the first tenet of CPAR was addressed through a phased approach where youth and young adults and families first reflected on their dreams and goals for successful adult lives (Trainor & Graue, 2014). Then, they used their conceptualizations to frame additional reflection focused on identifying and operationalizing the actions that stakeholders should take to support them in reaching these goals. The second tenet was addressed through youth and young adults with disabilities, family members, and stakeholders designing data collection tools, facilitating data collection, and analyzing results with members from their respective peer groups. From a critical perspective, this study addressed barriers to authentic participation through youth-led and family-led focus groups with only peers from that group. This was done to minimize external adult pressure or, in the case of parents, professional pressure, which previous studies have suggested may inhibit their freedom to speak due to fear of consequences brought on by power inequities with the educational system and American society (Hirano et al., 2018).

Data Collection

Our qualitative data were obtained during focus groups through a two-phase approach across multiple urban, rural, and, suburban sites within six regions of the U.S. commonwealth of Pennsylvania. Data collection sites included high schools, community centers, colleges, universities, and nonprofit community organizations, such as youth programs and family advocacy groups. During Phase 1, *Dreams and Goals*, we hosted eight youth focus groups across the state and eight family focus groups. For both youth and families, one regional focus group was hosted in five of the six subregions of the state (northeast, north central, northwest, southeast, and south central). Two focus groups were held in the southwest region, including Pittsburgh, and one additional event was held for surrounding counties. During Phase 2, *What's Working*, six individual regional focus groups were held for each participant group (youth, families, and stakeholders). Our study team, the advisory board, and affiliated organizations engaged their professional and community networks in Pennsylvania to disseminate recruitment information statewide to youth and young adults with disabilities, families, and transition stakeholders. This dissemination strategy occurred through multiple modes of communication (digital, print, and verbal) in both Spanish and English to ensure that the process for learning about and engaging with the study was equitable for those from culturally and linguistically diverse backgrounds. Via recruitment materials, potential participants were invited to focus group events for youth and young adults with disabilities, families of youth and young adults with disabilities, and transition stakeholders. During sessions within predominantly Spanish-speaking communities in the eastern part of the state, focus groups were communicated to families and youth in their native language as well as English by professional translators.

Phase 1: Dreams and goals. Each youth focus group was facilitated by a member of the PYLN. The use of youth-specific groups with facilitation by an empowered, self-determined peer ensured that all youth and young adults with disabilities who participated had the time, space, and support to authentically share their experiences without any

Youth Protocol

1. What are your biggest fears about life after high school?
2. What was the best part of your school experience?
3. What was the worst part of your school experience?
4. You wake up tomorrow and can plan a great day. What would you be doing?
5. What is important to you as you get ready for life after high school?
6. If you had a magic wand, what would you be doing after high school?
7. When you dream about your future, what will you be doing?

Family Protocol

1. What ignites your passion about transition for your son/daughter?
2. What are your biggest fears about your son/daughter's life after high school?
3. What was the best part of your son/daughter's school experience?
4. What was the worst part of your son/daughter's school experience?
5. What do you believe to be your son/daughter's strengths, talents, and gifts?
6. What makes your son/daughter happy as you prepare for life after high school?
7. If you had a magic wand, what would be happening to help your son/daughter and family prepare for life after high school?
8. As a family member, what expectations and goals do you have for your son/daughter when they leave high school?
9. As a family member, what are your long-term dreams for your son/daughter and family?

Figure 1. "Dreams and Goals" focus group questions.

parental or adult pressures. Each youth focus group began with an icebreaker activity where youth would break into groups and compete to see which could share the most strengths, talents, and gifts. During this activity, everyone had an opportunity to share their name and age. Then, sitting at a large table, youth and young adults were posed a set of semi-structured questions verbally displayed on large paper flip boards over the course of 45 to 60 min. The questions were generated by the youth, family, and stakeholder researchers and reviewed by the advisory board. Figure 1 shows a list of questions used during each focus group.

Each family focus group was facilitated by a family member of a young person with a disability serving as a trained researcher. This was done to minimize limitations on their freedom to speak due to fear of consequences brought on by power inequities between families and transition stakeholders. Each focus group took place at a large table with participants sitting wherever they chose. In alignment with a strength-based approach, the protocol (see Figure 1) was focused on the skills, accomplishments, and transition goals of their youth and family. The protocol also emphasized external factors, rather than presenting challenges to dreams and goals as embodied by youth and young adults or their families. The protocol was designed to support family comfort to openly share, empathize, and provide mutual support in a space with other adults who had similar experiences. This format ensured that family members were given the opportunity to validate and be validated when conversing about the dreams and goals they had for their youth.

For all *Dreams and Goals* focus groups, facilitators used the same set of strategies to support the active participation of attendees. Each facilitator would (a) use probing questions such as "Do you want to tell us more about. . .?" (b) would make connections between what participants shared by summarizing the main points of each conversation around the question, and (c) ask if anyone had additional thoughts. When applicable, the facilitator would use follow-up questions and probes to help participants unpack their responses about their transition experiences—not only what the experience was but also what contributed to why they felt that way. Clarifying questions were also used for responses that required in-depth contextual experience or knowledge of specific terms or information for others in the group to understand the response in a way that supported their reflections on their own experiences. For all focus groups, facilitators gave participants the option to write down or have someone write down their thoughts to the questions on a paper survey that only contained the questions posed to the group.

Phase 2: Successful transition practices. During Phase 2, a half-day transition fair was hosted to collect data while also providing attendees with information and access to transition resources and support. The event began with youth and young adults, family members, and stakeholders each participating in a focus group with their peers. All focus group sessions were 90 min in length. Following the focus group, a 1 hr and 30 min presentation was given by local transition stakeholders on transition-related programs and agencies available to families in Pennsylvania. Additional sessions for supporting youth self-advocacy (1 hr) and family engagement (1 hr) were hosted afterward.

Phase 2 replicated the same strategies employed during Phase 1 to support participant engagement, including (a) peer-led focus groups, (b) probing questions, (c) summarizing main points, and (d) clarifying concepts or language. The facilitator began by explaining that over the past year the study had spoken with youth and young adults and families

across Pennsylvania to learn about their dreams and goals for life after high school. The facilitator continued to explain that as a result of that work, they discovered that these dreams and goals fell into seven categories: Relationships, Person/Family Directed Planning, Family Education, Youth Development, Cross Agency Collaboration, Community Engagement, Employment, and Postsecondary Education. The facilitator then described each category by telling the group the summaries from the framework analysis coding matrix developed through Phase 1. The family facilitator would then ask the group: (a) "What things are currently being done by transition stakeholders to help your young person and family with [insert category]?" and (b) "What's working really well?." The language was changed slightly by the youth facilitator (e.g., ". . . done by transition stakeholders to help you with. . ."). For stakeholders, the same approach was used but involved participants reflecting on their transition practices, programs, and services.

Qualitative Analysis

Phase 1: Dreams and goals. During Phase 1, 20 hrs of audio transcripts from the *Dreams and Goals* focus groups ($n = 16$ transcripts) were uploaded into Microsoft Word for analysis as well as any written responses to the focus group prompts via the survey provided. We used a framework analysis method in which six youth and young adults with disabilities from the PYLN and six family members from the advisory board analyzed transcripts for their respective groups. The framework analysis method ensured that coding and organization of data would be systematic across researchers as well as the process of converging these findings across transcripts (Brantlinger et al., 2005). Doing so also ensured transparency of the inquiry process, particularly the "how" behind what is known from the study—the sequence of actions taken to generate descriptions about a phenomenon (Trainor & Graue, 2014). In having multiple youth and family researchers, we ensured the opportunity for investigator triangulation and collaborative decision-making during data analysis that would allow the team to compare work and identify instances of biased interpretations that diverge from group consensus (Brantlinger et al., 2005). In alignment with key elements of rigor in qualitative research, the following section provides methodical transparency through an explanation of how the analytical framework was created and applied within this study (Trainor & Graue, 2014). This includes how codes were generated and applied to obtain main themes across all transcript data and how these themes were systematically operationalized.

Phase 1 analysis began with each youth and family member of the research team independently reading the same transcript in its entirety with the opportunity to listen to the audio recording of the session to develop familiarity with the content. On the second read, each individual used emergent descriptive coding on each line in the transcript. Each youth and family researcher highlighted a phrase/part of a sentence, whole sentence, or multiple sentences and used the comment feature within Microsoft Word to assign a code to describe the primary or secondary subject of what was said by the focus group participant. Each coder also used the comment feature to write in analytical notes for patterns in the transcript data. After the first youth and family transcripts were coded, the youth and family researchers worked together to identify codes across transcripts for associations to a "parent" category. Direct text excerpts, as well as recurring nouns and adjectives from all of the sentences labeled with each code, were then used to operationalize each code. Initially, 14 categories were identified, which were collapsed into 9, each containing between 5 and 10 operationalized codes. Codes with synonymous nouns and clauses were consolidated, and negative case analysis was employed to identify any evidence that these codes had alternative meanings and, therefore, should not be combined. Any codes that were condensed were given a revised operationalization that contained central elements of each initial code. Negative case analysis was used again to gather any evidence to disconfirm these operationalized categories, leading to the development of sufficient rationale for the inclusion and exclusion of nested codes and the content of their descriptions (Brantlinger et al., 2005). With the analytical framework developed, the codes within the categories were then applied to each remaining transcript. In addition to this a priori coding, coders employed emergent descriptive coding with the goal of identifying additional codes that were significant but were not included in the analytical framework. These codes were categorized as "other input." Any codes from this category were evaluated for being assigned to sentences with similar clauses to those already assigned codes from the established categories within the analytical framework. When this occurred, they were integrated into existing codes. With all transcripts analyzed, data from these code operationalizations were summarized in a matrix (each row representing a focus group session) by each youth and family coder. Direct quotes, nouns, and clauses from segments of the transcripts assigned the code were used within the summaries. Data reduction was put under secondary review for retention of original meanings by all youth and family coders on the team and through peer debriefing from all youth and families on the advisory board (Brantlinger et al., 2005). The result was nine primary categories, each with its own operationalizations.

Phase 2: Successful transition practices. The purpose of Phase 2 was to identify characteristics of high-quality practices, supports, programs, and services within the primary categories of effective transition identified in the framework analysis coding matrix from Phase 1. During Phase 2, the following coding procedures were replicated as described

in Phase 1: (a) a priori coding based upon the analytical framework; (b) emergent coding to further operationalize categories within the framework; (c) group review of coded transcripts; (d) negative case analysis; and (e) member checking with youth and young adults, family members, and stakeholders. In addition, three levels of analysis were utilized during Phase 2: (a) individual (Level 1), (b) supports/services (Level 2), and (c) programs/initiatives (Level 3). These levels were predefined in accordance with the ecological model of transition (Bronfenbrenner, 1994; Trainor et al., 2020) and reviewed with each coder before analysis began.

Results

In response to the first research question, youth and families identified nine categories of high-quality transition: (1) Transition Planning, (2) Youth Development, (3) Person and Family Directed Planning, (4) Family Engagement, (5) Relationships, (6) Independent Living and Community Engagement, (7) Cross-Agency Collaboration, (8) Employment, and (9) Postsecondary Education. These were described by the participant researchers as *quality indicators* of effective practices, programs, and supports for transition to life after high school and throughout the lifespan. In response to Research Question 2, Figure 2 provides the 54 areas of high-quality transition within the nine categories that were operationalized with practices and expected outcomes. The participant researchers defined these 54 themes as *Quality Subindicators*.

Contextualizing the Transition Discoveries Framework: Dreams and Goals

The dreams and goals of youth and young adults with disabilities and their families who support their successful journey to meaningful lives after high school form the foundation of the indicators and subindicators within the Transition Discoveries Quality Indicator Framework. To address narrative transparency (Trainor & Graue, 2014), the following section provides unaltered descriptions of their lived transition experiences. These excerpts serve to contextualize the indicators and subindicators within the narratives that they were derived from. They demonstrate a strong representation of group norms for key themes in this study that became the Transition Discoveries Quality Indicator Framework.

Youth and young adults with disabilities overwhelmingly referenced the significance of being socially accepted with meaningful friendships and relationships (Indicator 5, Relationships), having success and stability in employment to earn a paycheck (Indicator 8, Employment), going to college (Indicator 9, Postsecondary Education), and having fun in their communities (Indicator 6, Independent Living and Community Engagement) when describing their expectations for life after high school. For example, one youth noted:

> "I would like to have a job that's right for me, that's going to fit, that I'm going to be successful at. And I'm going to want to get married obviously because I think I would make a great husband. And I also want to—I would also like, you know, I gave this a lot of thought, too. I want friends, obviously, and I also—I may want to start my own foundation one day. That's something I'm thinking about."

In conjunction with visions for their futures that youth held and articulated so clearly, there was evidence of understanding transition as ecological (Bronfenbrenner, 1994; Trainor et al., 2020) and that self-determination would be a central tenet in their journey to reach their goals for life after high school. Youth placed particular emphasis on external factors rather than internal, personal factors, such as their skills, knowledge, or abilities. The majority of the youth and young adults explained the negative perceptions of others, including families, teachers, and, generally, "adults" as a direct challenge to achieving their short- and long-term goals. However, in speaking about the impact of the perceptions of others, older young adults also noted, "There's a lot of adults in our ears talking about how many limits we have and shooting ideas down and stuff like that but that's not the case anymore." This suggested a potential shift in their experiences toward opportunities for greater autonomy in planning their lives (Indicator 3, Person and Family Directed Planning) as they mature through their high school experience. Other youth also noted this reality and attributed these changes to their efforts to define their own future. They expressed how doing so has influenced those around them to realize their potential—leading to high expectations and presumed competence. Within this dialog, youth also provided candid self-reflection by professing varying levels of self-doubt that were strongly coupled with their will to persevere and a realistic sense of self-efficacy. For instance, one youth said "I think my biggest fear was failure. Because I feel like I work hard to get to a certain point, and, like, what if I got there and was like, I stink at this. Or what if I'm not good as I think I'm going to be"—showing both effort and agency alongside uncertainty in their ability to achieve the goals they were working toward. At the same time, the majority of youth described growth mindsets playing a key role in how they envision themselves reaching their long-term goals. For instance, one youth said: ". . .sometimes after college you're going to get discouraged and even when you get discouraged just know in the back of your mind your end result of where you want to be". When explaining the importance of envisioning themselves in future roles as a way to direct their own growth and attainment, youth said that doing so will "motivate you to excel in what you want to do," and also, coupled this with realistic expectations by saying "It's going to be hard but it's going to be worth it at the end of the day."

Quality Indicator	Quality Sub-Indicator	
Transition Planning	▪ Career Exploration Planning and Preparation ▪ Postsecondary and College Planning ▪ Independent/Community Living ▪ Significant Role of School Personnel	
Youth Development	▪ Self-Awareness ▪ Disability Awareness ▪ Independent Living Skill Development ▪ Self-Determination Skill Development	▪ Leadership Skill Development ▪ Youth Engagement in Transition ▪ Significant Role of Adult ▪ Self-Management Skill Development
Person and Family Directed Planning	▪ Person and Family Centered Planning Practices ▪ Person and Family Centered Program Design	
Family Engagement	▪ Family Engagement in Transition Planning ▪ Family Information Sharing Activities ▪ Peer to Peer Family Support ▪ Family Respite	
Relationships	▪ Friendship ▪ Sense of Belonging ▪ Social Skills Development ▪ Anti-Bullying Efforts	
Independent Living and Community Engagement	▪ Independent Living Skills Development ▪ Planning for Future Living Arrangements ▪ Travel and Transportation Skills ▪ Recreation and Leisure	▪ Community Based Experiences ▪ Faith Based Experiences ▪ Civic Engagement ▪ Mental Health Supports
Cross Agency Collaboration	▪ Agencies in Schools ▪ Transition Staffings ▪ Transition Fairs ▪ Transition Conferences	▪ Employment Expos ▪ Community Agency Nights about Employment ▪ Transition Coordinating Councils
Employment	▪ Career Development Classes ▪ Career Clubs ▪ Career and Technical Education ▪ Career Exploration ▪ Discovery Process ▪ Unpaid Work Experience ▪ University Partnerships	▪ Paid Work Experience ▪ OVR Services ▪ Job Coaching Services ▪ Summer Employment ▪ On-the-Job Training ▪ Employer Partnerships
Post-Secondary Education	▪ Pre-College Experience Programs ▪ College-Based Transition Programs ▪ Postsecondary Education Programs ▪ Postsecondary Career Training Programs	

Figure 2. The Transition Discoveries Quality Indicator Framework.

Similar to that of their youth and young adults, families expressed a desire for their youth to achieve success and stability. Families viewed transition as a lifelong experience, especially when they are no longer there to support their children. Families also noted a primary goal of self-determination (Subindicator 2.4, Self-Determination) with their youth becoming self-aware of their own strengths and needs (Subindicator 2.1, Self-Awareness) so that they can begin living safely and independently (Indicator 6, Independent Living and Community Engagement) while being socially accepted with meaningful friendships and relationships. Within this context, one family member wanted their son "to have some insight so he would be curious about his disability, willing to learn about it. So, I think he would become more self-aware..." (Subindicator 2.2, Disability Awareness), while another wanted them to have

> "[a] typical life. Like, they would have whatever their disabilities, but they still would have the same rights as everybody else to live a happy life, have friends, eventually meet somebody they love and get married like everybody else." One parent also said ". . .I do believe my son's high functioning enough, he's actually, he's got a paying job two days a week. My concern is independent living. . ."

Families also expressed varying levels of discontent with current transition planning and services as well as a sense of urgency for significant systemic change before "falling off the cliff" where they "have to figure out

transition planning on their own." They expressed a lack of trust in the education system and agencies. However, despite their fears and documented negative experiences, families also articulated a real potential for change. They identified major factors in successful transition as parents being well-informed, supported, and involved in a family and youth-centered approach to individualizing planning and services (Indicator 3, Person and Family Directed Planning). At the same time, parents noted the impacts and limitations of their own self-efficacy, where they managed to figure that out [transition services] without a professional in organizations. But, figuring out "life sharing or employment, or requesting services, or are actually qualifying for waiver money, that's all things that we all have to figure out all by our lonesome it seems". In addition, they said ". . .So it's basically getting your district's supports coordinators on board. Giving them the supports and strategies to work in a collaborative effort to work with the various agencies" (Indicator 6, Cross Agency Collaboration).

Discussion

In this qualitative study, we described the methodology behind the development of the Transition Discoveries Quality Indicator Framework. In the following sections, we discuss potential alignment between the Transition Discoveries Quality Indicator Framework and current evidence-based models of practice in secondary transition, with particular emphasis on underrepresented dimensions of practice related to youth development, independent living, relationship development, and family engagement. We also provide recommendations for how the quality indicators and subindicators of this framework can be used to support youth and family engagement in transition planning. Using this study as a case example, we also provide several potential methodological guidelines for ecological triangulation in qualitative research for secondary transition. We define *ecological triangulation* as sampling participants, collecting data, and analysis that occurs across relevant levels and elements of the ecology of transition through a process of first conceptualizing outcomes, then, identifying and describing factors that mediate them (Trainor et al., 2020). Importantly, we discuss several applications of these strategies as they relate to school and agency-based efforts to improve transition programming.

Authentic Voices Reflecting Evidence-Based Practices

Analogous to current evidence-based models and predictors of secondary transition (Kohler et al., 2016; Mazzotti et al., 2021; Rowe et al., 2015), youth, families, and transition stakeholders in this study identified indicators and related subindicators that address components of person-centered planning as well as student development across academic, social, and post-school domains (i.e., continued education/training, employment). Furthermore, alignment can be observed through an emphasis on practices to ensure authentic family engagement in the transition process. The framework also places a strong emphasis on the components of interagency collaboration and provides specific recommendations for programmatic structuring. In reviewing the framework, there is evidence for a potential alignment between the subindicators and current evidence-based predictors of post-school success, including student-focused transition programming/planning, career awareness, vocational/occupational training, paid and unpaid work experiences, postsecondary education/training, youth development, independent living, interagency collaboration, and parental engagement (Mazzotti et al., 2021; Rowe et al., 2015).

The Transition Discoveries Quality Indicator Framework may represent a novel expansion of transition practices at the youth/family and community levels with particular emphasis on youth becoming leaders (2.6, Leadership Skill Development) and building authentic relationships with their peers, parents/families, transition stakeholders, and individuals in their communities (5.1 Friendships, 5.2 Sense of Belonging, and 2.8 Significant Role of an Adult). In the same way, youth and families in this study placed great emphasis on youth not only learning these skills but also attaining the capacity to apply them in real-world contexts through extracurricular and community activities (6.4 Recreation and Leisure and 6.5 Community-Based Experiences), particularly those centered around civic engagement (6.7 Civic Engagement). Participants voiced how such connections between skills and experiences can have a strong impact on expanding their peer relationships and sense of belonging (Indicator 5.2), those of which current literature supports as being critical to developing the kinds of positive social supports that lead to increased social capital necessary for achieving post-school outcomes (Yeager, 2018).

Limitations

Although this study utilized youth, family, and stakeholder-specific focus groups to reduce power inequities that might influence responses, participants' preexisting relationships with others in the focus groups as well as their own perceptions of group expectations to behave or act a particular way could have influenced their responses (Murray, 2006). In addition, while investigator triangulation, peer debriefing, and negative case analysis were employed, youth and family researchers varied in their self-knowledge about their assumptions and biases, which, in addition to a lack of direct member checks, could have contributed to coding bias. Bias was likely more of a threat during Phase 1 data analysis given that the matrix

Domain 1. Research Questions

1. A sequence of related questions that begin with participants conceptualizing quality of life (outcomes and experiences), followed by one or more additional questions that investigate aspects of the ecology of factors that mediate this conceptualization.
2. Research questions emphasize the youth, families, and stakeholders equally as the populations of interest.

Domain 2. Data Collection

1. Participants as researchers who are trained to facilitate data collection with individuals with whom they share a group affiliation (e.g., young people with disabilities, family members, educators, adult service providers, businesses) as a way of building relationships and reducing power structures that limit opportunity to respond and/or coerce responses (Hirano et al., 2018; Kemmis et al., 2013).
2. Sampling participants across all levels and elements of the ecology of transition (e.g., Trainor, 2019) that are pertinent to the independent variable(s), dependent variable(s) and population(s) of the research question.
3. Peer briefing of data collection tools (e.g., interview protocols, surveys) with youth, families and stakeholders (Brantlinger et al., 2004; Kemmis et al., 2013).
4. Data collection tools include questions and/or items that gather information about a phenomenon (e.g., social capital in transition planning) and its contributing factors at the individual, family, school, program, agency or community level (Trainor et al., 2019).
5. For dichotomously and categorically operationalized variables, qualitative data is collected about contextual differences in their occurrence between individuals and settings.

Domain 3. Data Analysis

1. Youth, family, and stakeholders as participant researchers who are trained to analyze qualitative data for their respective peer groups (Kemmis et al., 2013).
2. Emergent descriptive coding of data across the layers and elements of the transition ecology (e.g., Trainor et al., 2019) relevant to the variables and populations of the study, with the goal of identifying patterns for how multiple factors contribute to phenomena (e.g., effective programs, specific outcomes).
3. Peer briefing of codes and their operationalizations with youth, families, and stakeholders.
4. Attention to ecological validity, the extent to which the data collected provides a thick description (e.g., Brantlinger et al., 2005) of the ecology of factors potentially contributing to the specific transition phenomena being studied (e.g., Trainor et al., 2019).

Figure 3. Potential guidelines for ecological inquiry in secondary transition.

categories required the summarization of many individual conceptualizations of quality of life by youth and families. It is also likely that some youth and family researchers may have also interpreted the Phase 1 data through their own transition-related experiences and conceptualizations. Although a statewide sample was utilized for both phases, these findings may have some limited generalizability given that transition services and the contexts in which they occur vary significantly between states. In addition, demographic information was not collected but rather derived from thematic coding of transcript data; therefore, it may be difficult to generalize these findings across race, ethnicity, and socioeconomic status.

Implications for Future Research

Given the unique ecology of interrelated layers and factors within them that together impact transition planning and services, it has been recommended that a plurality of methods may be required to address remaining gaps in knowledge and practice for transition across the lifespan (Trainor et al., 2020). What remains to be developed are guidelines for how research questions, as well as data collection and analysis procedures, can be designed and implemented to trace ecologies of influence from multiple perspectives—*youth, families, and stakeholders across schools, agencies, and the community*. Based on our reflection of the methods for this current study, we have provided potential guidelines for research questions (Domain 1), data collection (Domain 2), and analyses (Domain 3) that together support ecological triangulation (see Figure 3). This guidance is designed to be a starting point that can be implemented, modified, and expanded through practice and further research, rather than an exhaustive list. The guidelines provided emphasize (a) youth, families, and transition stakeholders as coresearchers in the design of questions, data collection tools, and procedures and (b) analytical approaches that to the greatest extent possible, trace the pathways of influence across all relevant levels of the transition ecology that result in effective practices, programs, or systems (e.g., Trainor et al., 2020).

Implications for Practice

Families of young persons with disabilities often experience gaps in knowledge about effective practices, available services, and supports (Hetherington et al., 2010; Hirano et al., 2018). However, we know that their active engagement, characterized by informed decision-making, is a significant factor in post-school success (Mazzotti et al., 2016, 2021). A lack of knowledge of transition may place parents and guardians in passive roles as receivers of information rather than informed and self-determined transition team members (Hirano et al., 2018). Participant researchers in the current study identified a lack of knowledge of transition practices, programs, and services as a major theme across all three groups when constructing the data matrix. Knowledge of the transition planning process (e.g., rights

and processes); commonly available transition services and programs (e.g., Pre-Employment Transition Services); and adult services after graduation were all significant themes. Therefore, practitioners may focus efforts on developing experiences for youth and families to learn about these topics.

Research-based efforts to develop effective training for parents to learn about transition have included computer-based instruction (Rowe & Test, 2010) as well as providing informational brochures, followed by stakeholder-led explanations of their content (Young et al., 2016). At the same time, there have been significant developments in instructional approaches for supporting a student's self-determination skills in transition planning (Wehmeyer et al., 2012). However, there is a deficit in research on interactive strategies for families and youth and young adults to learn about transition together, particularly those that include both informational documents and structured conversation between the young person, their family, and stakeholders.

Stakeholders should consider the development and use of such strategies, which may result in transition planning meetings also being a place for planned instruction. Doing so may increase youth and family knowledge about transition and their capacity to be active decision makers. Continuity between support before and after transition planning meetings likely requires addressing the meeting itself as a place of learning for youth and families.

Upon completion of this study, youth, families, stakeholder researchers, and the advisory board transformed the Transition Discoveries Quality Indicator Framework into an infographic guide for youth and families to learn together about transition with the support of a stakeholder (see supplemental materials). In creating this guidebook, they designed a page for each subindicator based on the operationalized codes and categories of the analytical matrix that resulted in the Transition Discoveries Quality Indicator Framework. Each page provides essential practices and their expected outcomes as well as direct quotes from the transcripts to contextualize them. Stakeholders may use this guide as an instructional tool with youth/young adults and families before and during transition planning meetings, classes, or events, such as transition fairs or workshops. Among other things, this may include scavenger hunts, think-pair-shares, and KWL (i.e., know, want to know, and learned) activities that support youth/young adult and family knowledge of transition practices, programs, and services. Importantly, this may build youth/young adult capacity to make informed decisions about activities, services, and learning experiences within a course of study that aligns with their goals, strengths, preferences, and needs—supporting Indicator 13 compliance in the process.

Within the context of supporting interagency collaboration, teams may use the *Quality Indicators and Subindicators* (Figure 2) in conjunction with the strategies for ecological triangulation provided in Figure 3 to conduct resource mapping across schools, agencies, and community partners. Such work can then support efforts to improve current transition practices, programs, and services across schools and agencies. Stakeholders may find it beneficial to identify current transition practices, programs, and services that align with each component of the Transition Discoveries Framework while also taking note of those *Quality Subindicators* with limited or no examples from their current efforts. Using the Transition Discoveries Framework as a lens and the proposed strategies for ecological triangulation, it may be possible to connect information from youth, families, and transition stakeholders about additional current practices, programs, and services from schools, agencies, and community partners that align with each subindicator. This may support the identification of gaps in programs and services as well as opportunities to blend, coordinate, or streamline efforts. If such efforts are undertaken, youth and families should also have opportunities to peer-review data collection tools beforehand for language and provide recommendations to stakeholders. When it comes time to identify gaps and opportunities to streamline services, data analysis should engage youth and families as member checks and, when possible, co-researchers. This is where ecological triangulation can be applied by tracing the pathways of influence that result in effective and ineffective practices, programs, and services related to the Transition Discoveries Quality Indicator Framework—within the contexts and systems in which they occur. This, in turn, may support schools in identifying aspects of their current transition planning, activities, and related services that could be improved to better address the needs of youth/young adults with disabilities and their families. Identifying more areas within the Transition Discoveries Quality Indicator Framework that currently have limited school, district, or agency support, and developing a systematic plan to increase the fidelity of their implementation may assist the development of high-quality transition plans with related activities, services, and a course of study that together, result in strong post-school outcomes. Furthermore, using the framework again as a lens, school staff can orient themselves toward the ways in which transition-aged students with disabilities and their families may be conceptualizing effective transition. Doing so may support professionals in perspective-taking and provides them with accessible language about transition for use during transition planning discussions with youth and young adults and their families.

Conclusion

As a result of this study, the Transition Discoveries Quality Indicator Framework was developed, which describes the essential characteristics of high-quality transition that lead to transition outcomes as defined by youth and young adults

with disabilities, families, and stakeholders. Together, the methodology and guidelines provided contribute to a blueprint for future qualitative studies seeking to leverage youth, families, and stakeholders as experts in describing effective transition practices, programs, and services within the contexts and systems that they naturally occur. The results of this study further substantiate the importance of utilizing youth, families, and transition stakeholders as a direct source of information and guidance. Such efforts will likely be of significant importance as the field continues to investigate the complex ecology of persons, places, experiences, and systems that define the path to post-school success for all youth and young adults with disabilities.

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Supplemental Material

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