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Professional perspectives on postsecondary education supports for young adults with foster care experience: A concept mapping study

Scott D. Ryan
sdryan@uta.edu

The University of Texas at Arlington
Hui Huang
The University of Texas at Arlington
Catherine A. LaBrenz
The University of Texas at Arlington
Yao Wang
The University of Texas at Arlington
Eusebius Small
The University of Texas at Arlington
Lacey Jenkins
University of Alabama
Damone Wisdom
The University of Texas at Arlington
Rebecca Roten
The University of Texas at Arlington

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Abstract

Young adults with foster care experience continue to face substantial barriers to postsecondary education despite expanding policy initiatives and campus-based supports. Professionals working across child welfare and higher education systems possess unique perspectives on the supports necessary to promote educational success. This study used concept mapping, a mixed-methods participatory methodology, to examine professionals' perceptions of the supports young adults with foster care experience need to successfully pursue postsecondary education. Eight professionals representing child welfare, higher education, and youth-serving organizations sorted and rated 77 statements generated from an earlier qualitative project. Multidimensional scaling and hierarchical cluster analysis produced a six-cluster solution describing key domains of support: (1) Trauma-Informed Personal Resilience, (2) Independent Living Skill Development, (3) Professional Support for Education and Employment, (4) Access to Basic and Mental Health Needs, (5) Coordinated Systems for Transition to Independence, and (6) Postsecondary Access and Persistence Supports. Across all six clusters, participants rated supports as significantly more important than available, indicating consistent unmet needs. The largest perceived gaps centered on housing, transportation, transition planning, documentation, and coordinated cross-system supports, whereas financial aid resources and selected campus services were viewed as comparatively more available. Findings highlight the importance of coordinated, trauma-informed, and developmentally responsive systems that integrate child welfare, higher education, housing, and community services. Strengthening cross-system collaboration and expanding comprehensive supports may improve postsecondary access, persistence, and degree completion for young adults with foster care experience.

Introduction

In a recent systematic review of literature from 2000 to 2023, Okpych et al. (2025) estimated that only 29-64% of young adults with foster care experience enroll in postsecondary education, and only 8-12% earn a two-year or four-year college degree, far fewer than among young adults in the general population. Despite these low percentages, most young adults with foster care experience report wanting to earn a college degree or higher (Okpych & Courtney, 2021). Postsecondary education can provide benefits that set youth up for financial success throughout their lives. In the United States, higher levels of educational attainment are associated with lower rates of unemployment and higher median income (U.S. Bureau of Labor Statistics, 2025). Young adults with foster care experience tend to have higher unemployment rates and lower income than young adults in the general population, but postsecondary education is associated with reductions in those disparities (Okpych & Courtney, 2014).

Barriers during the transition to adulthood, such as economic hardship, lack of social support, and conflicting obligations, like parental responsibilities or full-time employment, can make it difficult for young adults with foster care experience to enroll in or complete postsecondary education (Okpych & Courtney, 2021). Additionally, many young adults with foster care experience are at risk of unemployment, homelessness, poor mental or physical health, or justice system involvement in the years after leaving care (Courtney et al., 2020; Kang-Yi & Adams, 2017), which may impact their ability to pursue postsecondary education. Many of these young adults may also be academically underprepared for higher education. Youth in foster care often fall behind academically compared with their peers, especially when they experience placement changes or educational disruptions while in care (Clemens et al., 2018), which can affect long-term educational outcomes.

Resources and supports are available to help address some of these barriers. Several states offer tuition waivers for young adults pursuing postsecondary education who meet certain eligibility criteria (Hernandez et al., 2017), and some young adults can apply for Education and Training Vouchers (ETV), which provide funds for education-related expenses and have been linked to positive educational outcomes, like increased odds of persisting through the first year of college (Okpych et al., 2020). Some universities and colleges have also created campus support programs (CSPs) for young adults with foster care experience, aimed at addressing various other unmet support needs, like tutoring, psychosocial counseling, housing, and referrals to external resources (Geiger et al., 2018; Huang et al., 2018; Randolph & Thompson, 2017). Although these and other existing supports have improved outcomes for many young people, disparities in educational attainment remain, underscoring the need for research into the persistent unmet educational needs and gaps in support.

Child welfare practitioners and professionals in related fields can provide valuable insights into the barriers and supports affecting young adults with foster care experience, as they are directly involved in service delivery and can observe the impacts of these factors across multiple youths. In previous studies, researchers have used interviews and focus groups with caseworkers and educational professionals to investigate educational outcomes and gaps in support for students with foster care experience (e.g., Huscroft-D'Angelo et al., 2022; Lipien et al., 2023).

The current study included professionals from diverse professional backgrounds, including foster care liaisons in public colleges/universities, administrators in residential programs serving transitional age youth, a judge of the dependency court, a youth specialist with lived experiences in foster care, and a former teacher and administrator from public schools. Using concept mapping, this study examined professionals' perceptions of the supports young adults with foster care experience need to successfully pursue postsecondary education.

Literature Review

Youth who age out of foster care have increased barriers to success, often resulting from lower levels of social support, social networks, and the experiences of child maltreatment that led to their foster care involvement (Blakeslee & Best, 2019; Wang & LaBrenz, 2025). Several researchers have found increased risk of mental health issues (Gypen et al., 2017), criminal justice involvement (Crawford et al., 2018), and homelessness (Dworksy et al., 2013). These, in turn, have been linked to a lower likelihood of postsecondary education enrollment and attainment among former foster youth (Rosenberg & Kim, 2018), highlighting a need to provide more holistic supports for youth aging out of care.

Child Welfare Involvement and Disrupted Family Relationships

The existing literature has documented the detrimental impact of prolonged involvement with the child welfare system on the development of supportive networks. Many youth are separated from their biological families following experiences of abuse, neglect, parental substance use, or family instability, which weaken long-term family connections and attachment relationships. In addition, placement instability further disrupts opportunities for youth to establish enduring relationships with foster parents, peers, and other supportive adults (Bederian-Gardner et al., 2018; Thompson et al., 2016). These repeated disruptions lead to social isolation, difficulty building trust, and limited access to the emotional and practical support that are critical for young people to rely on during the transition to adulthood. Young people with foster care experience lack enduring relationships during the transition out of care (Okpych et al., 2023).

The Roles and Importance of Formal Support System for Former Foster Youth

Formal support systems and professionals play critical roles in supporting young people to achieve their potential as they pursue postsecondary education and transition into adulthood. With the recognition of the challenges of navigating postsecondary education, many universities have developed campus support programs for former foster youth (Dworsky & Pérez, 2010; Geiger et al., 2016; Randolph & Thompson, 2017; Huang et al., 2018). Those campus support programs provide an array of services, including mentorships, financial aids, academic counseling, housing, etc. to help foster care alumni stay engaged with school and be academically successful. A few studies have examined the perspectives of mentors' and program staff on working with students with foster care experience on campus. Mentors reported improvement in academic performance over time and emphasized that many students were balancing work, school, financial pressures, and family responsibilities simultaneously (Huang et al., 2018). However, mentors expressed their concerns on under-preparedness to work with students experiencing serious mental health challenges and believed that they received limited ongoing support to better serve these students (Huang et al., 2018).

Federal Policy Landscape Supporting Postsecondary Education for Former Foster Youth

The John H. Chafee Foster Care Program for Successful Transition to Adulthood was authorized under Title IV-E, Section 477 of the Social Security Act (P.L. 106–169; P.L. 115–123; P.L. 116–260). Through the Chafee Program, over $140 million is authorized annually for states to provide services such as educational vouchers and housing for youth transitioning out of foster care (Landers, 2024). Recently, due to continued challenges and negative outcomes for youth transitioning out of foster care, federal executive orders have focused on improving utilization of Chafee funds. On November 13, 2025, the President signed Executive Order 14359, Fostering the Future for American Children and Families. As part of the Executive Order, the Secretary of Health and Human Services was tasked with several strategies to improve outcomes for transition age foster youth including: 1) to establish an initiative to develop partnerships between universities, non-profit organizations, and agencies to increase educational and employment opportunities for foster youth as they transition out of foster care; 2) to create an online platform with resources; 3) to increase flexibility of education and training vouchers; 4) to develop strategies to reallocate funds returned by programs to promote educational, employment, and financial literacy outcomes; and 5) to facilitate scholarships through tax-credits for donations to organizations supporting higher education for children in foster care (Trump, 2025). Subsequently, the U.S. House Committee on Ways and Means approved six pieces of legislation in April 2026 to modernize and improve the Chafee program (U.S. House Committee on Ways and Means, 2026).

These recent pieces of legislation provide provisions for increases in the education and training voucher cap, expands use of ETVs to workforce, vocational training, and credentialing programs, as well as apprenticeships and remedial education programs. Additional provisions increase access to home visiting services for transition age youth who are expecting or parenting. As more opportunities through these policy updates emerge, it is important to consider implementation and installation of resources. Professionals who serve transition age youth in various settings are well positioned to identify ongoing barriers to educational enrollment and success, and identify key strategies to ensure that new resources, initiatives, or programs, can reach and serve transition age youth.

Collectively, previous studies demonstrate that educational success depends on coordinated financial, relational, and institutional supports. However, little research has examined how professionals working across child welfare and higher education conceptualize these supports simultaneously. The present study addresses this gap through concept mapping.

Theoretical Framework

From the lens of professionals who closely work with former foster youth, ecological system theory guided this study to understand the experiences of former foster youth as they pursue postsecondary education (Bronfenbrenner, 1979). Ecological systems theory emphasizes that individual development is influenced through ongoing interactions between individuals and the surrounding multiple systems. For former foster youth, postsecondary educational outcomes are shaped not only by individual motivation or skill sets, but also by interactions within broader systems, including family relationships, peer networks, child welfare agencies, higher education institutions, mental health services, housing, and workforce programs etc.

Guided by ecological systems theory, this study examines how professionals perceive the various environmental and systemic factors affecting young people with foster care experience as they navigate postsecondary education. Professionals such as on-campus support program staff, service providers, and child welfare workers have extensive experience working with young people and they often work across multiple systems and serve as critical connectors between young people and institutional support. They can provide insight into how interactions across systems either facilitate or hinder academic success, service utilization, and overall well-being.

Method

Sample

The sampling and data collection consisted of two stages. The first stage was part of a larger/separate project that included 43 individuals who participated in qualitative data collection. This group consisted of 14 professionals who provided services to youth aging out of care and 29 young adults who exited care. Among the 14 professionals: six of them were case managers at an aftercare agency that contracted with the state to provide case management to youth who exit care; one is a Preparation for Adult Living (PAL) caseworker who coordinates support services to help older youth in foster care transition out of care and; one is a youth specialist at the state department working on engaging youth in transitional services; one is a judge in permanency court; two are mentors in a mentoring agency specialized in providing mentoring services to youth aging out of care; and three are program managers of campus support programs in three different colleges/universities. The professionals participated through either a focus group or individual interview, depending on their preference. In addition to the 14 professionals, the study included 29 young adults who had aged out of care. They each participated via individual interviews. Among them, 11 had no college experience and 18 were attending some form of secondary education. A portion of the qualitative data collected were analyzed and distilled to generate the list of statements for concept mapping sorting and rating.

To facilitate the second stage of this project (sorting and rating, as will be described below), eight professionals who work with current and former foster youth were recruited to participate. Three of them are foster care liaisons in public colleges or universities. These liaisons play a coordination, navigation, and advocacy role, helping students access services in the university as well as the community. Two participants are administrators at residential programs serving young adults at a transitional age. One is a youth specialist in the State Department for child welfare services. The youth specialist had lived experiences of aging out of foster care. One is a judge in the dependency court. One is a former teacher and administrator in public schools. The researchers recruited these participants through two paths: (1) from local public universities with foster care liaisons, and (2) via an annual state child-welfare conference attended by professionals working in the child welfare system. The researchers purposefully attended conference presentations related to services for youth aging out of care and recruited the presenters and audiences at the related presentations for this study.

Although the number of second stage participants was modest, the sample size is consistent with recommendations for concept mapping studies. Unlike conventional survey research, concept mapping relies on participants sorting and rating ideas to produce an aggregate similarity matrix rather than estimating population parameters. Because concept mapping seeks conceptual convergence rather than statistical estimation, participant expertise is generally considered more important than sample size. Methodological guidance indicates that approximately 5–15 participants are generally sufficient for the sorting task because additional participants typically yield diminishing improvements in map stability (Kane & Trochim, 2007; Rosas, 2017). Furthermore, Rosas and Kane's (2012) pooled analysis of concept mapping studies demonstrated that concept mapping routinely produces acceptable multidimensional scaling solutions across relatively small participant samples when stress values indicate good model fit. Accordingly, the present study emphasizes depth of participant expertise rather than statistical representativeness, as all participants possessed extensive professional expertise serving youth with foster care experience during the transition to postsecondary education.

The study focused on professionals working with youth formerly involved in foster care to address the following research question:

- What do young adults from foster care need for pursuing postsecondary education?

Using a 5-point scale with 1 (Very Unimportant) to 5 (Very Important), statements were then rated according to:

- How IMPORTANT do you feel it is, *compared to the others*?
- How AVAILABLE do you feel it is, *compared to the others*?

Concept Mapping

This study employed concept mapping, a systematic mixed methods approach that effectively combines qualitative data generation with quantitative analytic techniques to create a visual representation of participants' conceptualizations regarding a specific focal phenomenon (Miller & Jones, 2015). In this investigation, concept mapping was utilized to gain insights into the perceptions of professionals who work closely with former foster youth, specifically focusing on their understanding of the essential supports and resources that young adults exiting the foster care system require to successfully navigate and pursue postsecondary education opportunities. The concept mapping methodology is particularly well-suited for this context, as it captures the intricacies of practice-informed perspectives and allows for the organization of these insights into coherent and interpretable domains (Miller & Jones, 2015). These domains reflect both the perceived needs of the young adults and the system-level supports that can facilitate their educational journeys. By employing this structured approach, the study aimed to illuminate the multifaceted challenges and resources associated with postsecondary education for former foster youth, ultimately contributing to enhanced understanding and support strategies within educational and social service systems.

The statements used in this study were collected through qualitative data collection via the larger study described previously. The researchers asked those participants the following questions (among many others) - the answers of which were used for this study.

- What resources *are you familiar with* that could help you/your clients achieve your/their educational goals?
- What *other resources* would be helpful for you/your clients to achieve your/their educational goals?

Following participants' brainstorming responses to these questions, a statement synthesis process was conducted by the research team to refine the data into a manageable and analytically useful set of statements. This process involved removing duplicate or redundant entries, separating compound statements into discrete ideas, and editing for clarity while preserving the original meaning of participants' contributions (Trochim, 1989). Care was taken to

maintain the authenticity of the participant's voice while ensuring consistency in language and structure across statements. The final statement pool consisted of 77 unique statements.

This study involved a diverse group of participants, all of whom were professionals actively working with former foster youth. The average age of the participants was 49.00 years, with a standard deviation of 13.83, indicating a wide range of professional maturity. This group represented a variety of roles, including educators, social workers, counselors, and program administrators, as well as various racial and ethnic backgrounds, highlighting the multifaceted nature of the support systems available to foster youth.

The eight participants in this second stage engaged in a series of sorting and rating tasks designed to assess their perceptions of various statements (Miller & Jones, 2015). In the sorting phase, each participant independently categorized the statements based on their perceived similarities, creating groups that reflected common themes or concepts (Miller & Jones, 2015). To facilitate this process, they also assigned descriptive labels to each group, highlighting the overarching ideas that connected the statements (Miller & Jones, 2015). The data generated from this sorting phase were then compiled to create a similarity matrix (Miller & Jones, 2015). This matrix quantified how frequently pairs of statements were grouped together by different participants, providing an insight into the relationships perceived among the statements across the entire participant pool. Following the sorting phase, participants proceeded to the rating phase, where they were tasked with evaluating each individual statement along two critical dimensions: importance and availability (Miller & Jones, 2015). This was accomplished using a 5-point Likert-type scale, allowing participants to express their views on a continuum from 1, indicating "not very important/available," to 5, indicating "very important/available." This dual-rating structure was particularly valuable, as it enabled a comprehensive assessment of both the significance that participants attributed to various supports and the perceived accessibility of those supports within existing systems (Rosas & Kane, 2012). To analyze the results, difference scores were computed for each statement and grouped clusters by subtracting the availability rating from the importance rating (Importance minus Availability) (Miller & Jones, 2015). This calculation helped in identifying discrepancies between the support needed and the support accessible.

The data analysis was conducted following well-established concept mapping procedures designed to systematically organize and represent concepts (Miller & Jones, 2015). Initially, a similarity matrix was created, capturing the perceived relationships between different statements (Rosas & Kane, 2012). To interpret this matrix, we employed Multidimensional Scaling (MDS), a statistical technique that helps visualize the level of similarity among statements in a spatial format (Piccarreta & Lior, 2010). This process resulted in a two-dimensional point map, where the proximity of points indicated the degree of conceptual similarity; statements that are closer together on the map share more in common, while those further apart were more distinct (Piccarreta & Lior, 2010). To assess the quality of the MDS solution, we calculated a stress value, which provided a measure of how well the reduced-dimensional space represents the original data. A lower stress value indicated a better fit, confirming the reliability of the spatial representation. Following the MDS analysis, we conducted hierarchical cluster analysis on the MDS coordinates to systematically group the statements into broader conceptual domains. We explored varying numbers of cluster solutions to determine the optimal grouping. Ultimately, we arrived at a six-cluster solution, which was deemed the most conceptually coherent and interpretable. This decision was based on factors such as the clarity of the concepts represented in each cluster and the distinctiveness of the clusters from one another, allowing for a meaningful understanding of the underlying themes within the data.

To gain deeper insights into the patterns regarding perceived strengths and gaps within the system, a comprehensive go-zone analysis was performed. This analytical method specifically identifies and highlights those statements that are rated above the mean in terms of both their importance and availability (Miller & Jones, 2015). By focusing on these areas, the analysis helped to pinpoint aspects of the system that were regarded as relatively strong or effective by professionals involved. The go-zone analysis serves a dual purpose: it not only identifies supports that professionals perceive as essential and readily accessible, but it also complements the findings from difference score analyses (Miller & Jones, 2015). While difference score analyses shed light on areas where unmet needs exist, the go-zone analysis helps establish a clearer picture of the critical supports that are available and deemed valuable (Miller & Jones, 2015).

To examine the disparities between the ratings of importance and availability, a series of inferential analyses were undertaken. Specifically, paired samples t-tests were implemented at the cluster level. This statistical method allows us to assess whether the perceived importance of various factors significantly surpasses the perceived availability of those same factors within each specific domain under investigation (Miller & Jones, 2015). By comparing the means of these two ratings, we aimed to identify areas where individuals feel that the significance of certain aspects is not adequately met by their availability.

Results

Professionals Working with Former Foster Youth

The sample was comprised of eight professionals working with young adults formerly in foster care, representing a range of roles and backgrounds. Participants were predominantly women (n = 7) and included individuals from diverse racial and ethnic groups (e.g., White [n = 4], Hispanic [n = 2], Black/African American [n = 1], and Asian[n = 1]), with average age of 49.00 years old (sd = 13.83 years). Participants had varying levels of professional experience ranging from 1 to 20 years (average = 8.88 years; sd = 7.41 years), indicating a relatively experienced group. Consistent with the broader study description, these professionals included foster care liaisons, administrators, and others working directly with foster-experienced youth, providing multiple perspectives on the supports needed for postsecondary success.

Cluster Solution

As shown in Table 1 below, professionals working with former foster youth (professionals) sorted and rated statements addressing the question: *What do young adults from foster care need for pursuing postsecondary education?* Statements were organized into six conceptually distinct clusters. Professionals

rated each statement on importance and availability, and difference scores (Importance-Availability) were calculated to identify perceived gaps between need and access. Cluster-level means and statement-level examples illuminate areas of strength as well as structural strain within current support systems.

Table 1
Professionals (What do young adults from foster care need for pursuing postsecondary education?)

Clusters & Statements	Importance	Availability	Difference*
Trauma-Informed Personal Resilience	4.35	3.52	0.83
Ability to handle situations with biological family	4.38	2.88	1.50
Religious belief	3.38	3.38	0.00
School stability	4.63	3.38	1.25
Self-confidence	4.50	3.88	0.62
Trauma-related therapy	4.38	3.63	0.75
Youth's own accountability**	4.88	4.00	0.88
Independent Living Skill Development	4.54	3.77	0.77
Positive emotion management skills	4.50	3.63	0.87
Financial management skills**	4.88	3.75	1.13
Self-independent	4.25	4.13	0.12
Problem-solving skills	4.50	3.63	0.87
Self-determination**	4.75	4.00	0.75
Time management skills	4.38	3.50	0.88
Professional Support for Education and Employment	4.50	3.58	0.92
Employment	4.38	3.75	0.63
Learn about resources**	4.75	3.75	1.00
Mentoring for decision making	4.38	3.88	0.50
Perseverance**	4.75	4.00	0.75
Preparation for Adult Living (PAL) program services on independent living skills training	4.38	3.75	0.63
Study skills	4.50	3.50	1.00
Supervised Independent Living (SIL) on college campus or nearby	4.63	3.00	1.63
Training of foster care liaison	4.38	3.38	1.00
Workshops using role plays to teach youths to prepare for job interviews	4.13	3.00	1.13
Assistance with obtaining housing vouchers**	4.75	3.75	1.00
Access to Basic and Mental Health Needs	4.46	3.74	0.72
Accommodation for their disability related to trauma	4.75	3.25	1.50
Childcare	4.50	3.38	1.12
Extended foster care	4.50	3.88	0.62
Food pantry**	4.63	4.13	0.50
Internet access**	4.75	4.00	0.75
Less expensive cell phone data plans	4.38	3.25	1.13
Mental health services - counseling	4.38	4.00	0.38
Public library	3.50	3.88	-0.38
Case management assistance	4.50	3.50	1.00
Mental health services - medications**	4.75	4.13	0.62
Coordinated Systems for Transition to Independence	4.54	3.43	1.11
Clear communication on available resources	4.75	3.50	1.25
Earlier communication on available resources**	4.63	3.63	1.00
Free GED program	4.13	3.38	0.75

NOTE: *Importance-Availability=Difference; **HIGH Importance and HIGH Difficulty Go-Zone Statements

Clusters & Statements	Importance	Availability	Difference*
Helping youth build consistency into their lives	4.63	3.50	1.13
Helping youth stick with resources	4.38	3.25	1.13
Housing in more youth-oriented and longer-stay shelters	4.50	3.13	1.37
Preparation for Adult Living (PAL) program services on financial assistance	4.75	3.25	1.50
Smooth transition of critical documentations from foster parents/other caregivers to youth at time of exiting care	4.88	3.38	1.50
Stable supports who advise them to think about their future**	4.88	3.63	1.25
Support to accept and access mental health services	4.38	3.63	0.75
Tangible financial support for books and supplies	5.00	3.50	1.50
Transportation	4.88	3.13	1.75
Youth being educated about the importance of documentations before exiting care**	4.63	3.63	1.00
Accessible GED program	3.88	3.38	0.50
Assistance with obtaining a computer	4.63	3.25	1.38
Collaboration between support systems**	4.63	3.75	0.88
Connect with community resources**	4.63	3.75	0.88
Connect with high school counselor	4.13	3.38	0.75
Frequent check-ins with students	4.63	3.25	1.38
Connect with workforce program	3.88	3.38	0.50
Postsecondary Access and Persistence Supports	4.57	3.50	1.07
Advice on choosing schools that take tuition waivers**	4.63	3.63	1.00
Academic advising availability	4.50	3.75	0.75
Campus social events	4.25	3.63	0.62
College/postsecondary education application made accessible**	4.88	3.75	1.13
Education and Training Voucher (ETV) eligibility**	4.88	4.13	0.75
Exposure to postsecondary education opportunities	4.50	3.25	1.25
FAFSA application support**	5.00	3.88	1.12
Housing in community colleges	4.75	2.50	2.25
In-person classes to get hands-on training	4.13	3.38	0.75
Knowledgeable foster care liaison	4.75	3.50	1.25
Mentoring by people with college experiences	4.13	3.38	0.75
More individualized path through education	4.25	3.25	1.00
On-campus housing during academic year and breaks	4.88	3.50	1.38
One-on-one case management in foster care campus support programs	4.38	3.50	0.88
Online college programs	3.63	3.50	0.13
Peer support from college members who have lived experiences in foster care	4.50	2.88	1.62
Tuition and fee waiver**	5.00	4.50	0.50
Tutoring in elementary, middle, and high schools	4.50	3.13	1.37
Vocational schools/trade schools and shorter programs covered by tuition waivers**	4.88	3.63	1.25
Advice on education**	4.75	3.63	1.12
Assistance with college applications**	5.00	3.75	1.25
Collaborations between community colleges and four year universities	4.38	3.50	0.88
Help to connect with campus resources**	4.75	3.63	1.12
NOTE: *Importance-Availability=Difference; **HIGH Importance and HIGH Difficulty Go-Zone Statements			

Clusters & Statements	Importance	Availability	Difference*
Summer transition programs in college campus	4.38	2.88	1.50
Teach how to communicate with professors	4.63	3.38	1.25
NOTE: *Importance-Availability=Difference; **HIGH Importance and HIGH Difficulty Go-Zone Statements			

[INSERT Table 1]

Cluster 1: Trauma-Informed Personal Resilience

This cluster captured professionals' perceptions of the internal capacities and emotional supports required for foster-experienced students to persist in postsecondary education. Overall, items in this cluster were rated as highly important (M = 4.35) but only moderately available (M = 3.52), yielding a positive difference score (0.83) that suggests unmet need. Statements such as *"ability to handle situations with biological family"* (Importance = 4.38; Availability = 2.88; Difference = 1.50) and *"school stability"* (Difference = 1.25) illustrate how unresolved family dynamics and placement disruptions continue to influence educational trajectories. Professionals also emphasized the importance of trauma-specific supports, including *"trauma-related therapy"* (Difference = 0.75) and *"accommodation for disability related to trauma"* (Difference = 1.50), highlighting the enduring effects of complex trauma on learning and persistence. The inclusion of *"youth's own accountability"* (Importance = 4.88; Availability = 4.00) underscores professionals' recognition that resilience is both internally and externally supported. This aligns with research indicating that trauma-informed educational environments must balance personal agency with sustained institutional support to promote persistence among foster-experienced students (Briggs et al., 2012; Day et al., 2011).

Cluster 2: Independent Living Skill Development

Independent living competencies were rated as highly important overall (M = 4.54), with more moderate availability (M = 3.77), suggesting a persistent preparation gap. Professionals highlighted skills necessary for navigating adulthood alongside academic demands, including *"time management skills"* (Difference = 0.88), *"problem-solving skills"* (Difference = 0.87), and *"positive emotion management skills"* (Difference = 0.87). Financial capacity emerged as a central concern. *"Financial management skills"* (Importance = 4.88; Availability = 3.75) reflected one of the largest gaps within the cluster (Difference = 1.13), reinforcing evidence that financial instability is a major barrier to postsecondary success for FFY (Courtney et al., 2011; Dworsky & Pérez, 2010). Similarly, *"self-determination"* (Importance = 4.75; Availability = 4.00) was rated as both essential and relatively available, suggesting that while youth motivation may be present, opportunities to translate determination into sustained academic progress remain uneven.

Cluster 3: Professional Support for Education and Employment

This cluster reflected the role of structured adult guidance and institutional supports. Participants rated these items as highly important (M = 4.50) but less consistently available (M = 3.58). Items such as *"training of foster care liaison"* (Difference = 1.00) and *"supervised independent living on college campus or nearby"* (Difference = 1.63) highlight institutional gaps that directly affect students' ability to remain enrolled. Several statements emphasized persistence-oriented supports, including *"perseverance"* (Importance = 4.75; Availability = 4.00) and *"learning about resources"* (Importance = 4.75; Availability = 3.75). These findings echo prior research demonstrating that educational success among FFY is strongly associated with consistent mentoring and proactive navigation of bureaucratic systems (Geiger & Beltran, 2017; Salazar, 2013).

Cluster 4: Access to Basic and Mental Health Needs

This cluster addressed material and health-related supports foundational to educational engagement. Overall importance ratings were high (M = 4.46), while availability lagged (M = 3.74). Statements such as *"childcare"* (Difference = 1.12) and *"less expensive cell phone data plans"* (Difference = 1.13) illustrate how everyday resource gaps can undermine academic continuity. Several items - *"food pantry"* (Importance = 4.63; Availability = 4.13), *"internet access"* (Importance = 4.75; Availability = 4.00), and *"mental health services-medications"* (Importance = 4.75; Availability = 4.13) - were perceived as both important and relatively available, suggesting areas where institutional investments may be yielding tangible benefits. Prior studies confirm that food security, digital access, and mental health continuity are strongly linked to persistence and retention for foster-experienced college students (Hernandez & Naccarato, 2010; Okpych & Courtney, 2021).

Cluster 5: Coordinated Systems for Transition to Independence

Professionals emphasized the importance of system-level coordination during transitions out of care. This cluster demonstrated a sizable importance–availability gap (Importance M = 4.54; Availability M = 3.43). Statements such as *"transportation"* (Difference = 1.75) and *"smooth transition of critical documentation from caregivers to youth"* (Difference = 1.50) reflect systemic barriers that can derail enrollment and financial aid processes. Highly rated items included *"stable supports who advise them to think about their future"* (Importance = 4.88; Availability = 3.63) and *"collaboration between support systems"* (Importance = 4.63; Availability = 3.75). These findings align with transition-to-adulthood frameworks emphasizing continuity of relational and institutional supports as essential for educational persistence (Arnett, 2000; Munson & McMillen, 2009).

Cluster 6: Postsecondary Access and Persistence Supports

This cluster captured direct academic and institutional supports needed for college access and success. Professionals rated these supports as highly important (M = 4.57) but less consistently available (M = 3.50). Large gaps emerged for *"housing in community colleges"* (Difference = 2.25) and *"peer support from college members with lived foster care experience"* (Difference = 1.62). Critical access supports such as *"FAFSA application support"* (Importance = 5.00; Availability = 3.88), *"tuition and fee waiver"* (Importance = 5.00; Availability = 4.50), and *"college application made accessible"* (Importance = 4.88; Availability = 3.75) underscore professionals' recognition that bureaucratic complexity remains a major barrier. These findings are consistent with research showing that targeted campus-based programs significantly improve enrollment and persistence outcomes for foster youth (Day et al., 2011; Unrau et al., 2017).

Go-Zones

Go-zone analyses identified statements rated as both highly important and highly available, indicating areas of relative system strength. These items clustered primarily around personal agency, basic needs access, resource navigation, and postsecondary financial supports. Within Trauma-Informed Personal Resilience, *"youth's own accountability"* emerged as a go-zone item, suggesting professionals perceive personal responsibility as both essential and sufficiently supported. In Independent Living Skill Development, *"financial management skills"* and *"self-determination"* were highlighted, reinforcing the importance of equipping youth with both practical and motivational tools for navigating postsecondary environments. In Professional Support for Education and Employment, go-zone items such as *"learning about resources"* and *"perseverance"* indicate that professionals see strengths in youth engagement when guidance is consistently provided. Similarly, in Access to Basic and Mental Health Needs, *"food pantry," "internet access,"* and *"mental health services-medications"* reflect institutional supports that may buffer against academic disruption. Notably, the Postsecondary Access and Persistence Supports cluster contained multiple go-zone items, including *"tuition and fee waiver," "FAFSA application support," "ETV eligibility,"* and *"vocational schools/trade schools covered by tuition waivers."* These findings suggest that policy-level financial supports are among the most effective and accessible mechanisms currently in place, consistent with evidence linking tuition waivers and targeted financial aid to improved college outcomes for FFY (Okpych & Courtney, 2020; Okpych & Courtney, 2021; Ryan et al., 2025).

T-Tests

Across clusters, professionals consistently rated needs as more important than available, indicating a systematic "importance–availability" gap (i.e., perceived unmet need). As shown in Table 2, paired-samples *t* tests comparing Importance vs. Availability were significant for all six clusters, with Importance higher in every case: Cluster 1, $t(10) = 3.41$, $p = .007$, $dz = 1.03$; Cluster 2, $t(10) = 6.15$, $p < .001$, $dz = 1.85$; Cluster 3, $t(18) = 7.54$, $p < .001$, $dz = 1.73$; Cluster 4, $t(18) = 4.72$, $p < .001$, $dz = 1.08$; Cluster 5, $t(38) = 13.53$, $p < .001$, $dz = 2.17$; Cluster 6, $t(48) = 10.48$, $p < .001$, $dz = 1.50$. Effect sizes were uniformly large, underscoring that professionals perceived sizeable, practically meaningful gaps between what students need and what is currently accessible.

Table 2
Professionals' T-Tests

Rating 1 vs. Rating 2	**t-value**	**df**	**p-value**	**sig. (higher)**
Cluster 1	t = 3.409*	df = 10	p=.007	Rating 1
Cluster 2	t = 6.152*	df = 10	p=.000	Rating 1
Cluster 3	t = 7.537*	df = 18	p=.000	Rating 1
Cluster 4	t = 4.720*	df = 18	p=.000	Rating 1
Cluster 5	t = 13.530*	df = 38	p=.000	Rating 1
Cluster 6	t = 10.477*	df = 48	p=.000	Rating 1
Rating 1 - Cluster vs. Cluster	**t-value**	**df**	**p-value**	**sig. (higher)**
1 vs. 2	t = 0.890	df = 10	p=.394	ns
1 vs. 3	t = 0.721	df = 14	p=.483	ns
1 vs. 4	t = 0.489	df = 14	p=.632	ns
1 vs. 5	t = 0.897	df = 24	p=.379	ns
1 vs. 6	t = 1.064	df = 29	p=.296	ns
2 vs. 3	t = 0.387	df = 14	p=.705	ns
2 vs. 4	t = 0.564	df = 14	p=.582	ns
2 vs. 5	t = 0.037	df = 24	p=.971	ns
2 vs. 6	t = 0.261	df = 29	p=.796	ns
3 vs. 4	t = 0.294	df = 18	p=.772	ns
3 vs. 5	t = 0.396	df = 28	p=.696	ns
3 vs. 6	t = 0.765	df = 33	p=.450	ns
4 vs. 5	t = 0.573	df = 28	p=.571	ns
4 vs. 6	t = 0.837	df = 33	p=.409	ns
5 vs. 6	t = 0.338	df = 43	p=.737	ns
Rating 2 - Cluster vs. Cluster	**t-value**	**df**	**p-value**	**sig. (higher)**
1 vs. 2	t = 1.418	df = 10	p=.187	ns
1 vs. 3	t = 0.294	df = 14	p=.773	ns
1 vs. 4	t = 1.170	df = 14	p=.262	ns
1 vs. 5	t = 0.570	df = 24	p=.574	ns
1 vs. 6	t = 0.151	df = 29	p=.881	ns
2 vs. 3	t = 1.414	df = 14	p=.179	ns
2 vs. 4	t = 0.238	df = 14	p=.815	ns
2 vs. 5	t = 3..408*	df = 24	p=.002	Cluster 2
2 vs. 6	t = 2.299*	df = 29	p=.029	Cluster 2
3 vs. 4	t = 1.086	df = 18	p=.292	ns
3 vs. 5	t = 1.273	df = 28	p=.214	ns
3 vs. 6	t = 0.610	df = 33	p=.546	ns
4 vs. 5	t = 2.671*	df = 28	p=.013	Cluster 4
4 vs. 6	t = 1.827	df = 33	p=.077	ns
5 vs. 6	t = 0.714	df = 43	p=.479	ns

Note: *Significant at $p \leq 0.05$

[INSERT Table 2]

Cluster-Level Differences Between Importance (R1) & Availability (R2)

Cluster 1: Trauma-Informed Personal Resilience

Professionals rated Trauma-Informed Personal Resilience as highly important (M = 4.35) but less available (M = 3.52), yielding a positive difference (0.83). Statement-level gaps highlighted relational and trauma-related barriers that can undermine postsecondary participation, such as "*ability to handle situations with biological family*" (4.38 vs. 2.88; Difference = 1.50) and "*school stability*" (4.63 vs. 3.38; Difference = 1.25). These patterns align with evidence that foster-experienced students often contend with trauma exposure, disrupted relationships, and instability that complicate academic persistence and well-being (Lietz & Cheung, 2023; Tobolowsky et al., 2019). Within this cluster, "*youth's own accountability*" (4.88 vs. 4.00) was identified as a go-zone item, suggesting professionals view agency/self-management as a relative strength compared with other resilience needs-yet the significant within-cluster *t* test indicates that, overall, resilience-related supports still lag behind perceived importance.

Cluster 2: Independent Living Skill Development

Independent Living Skill Development was rated as highly important (M = 4.54) and somewhat more available than several other clusters (M = 3.77; Difference = 0.77). The within-cluster gap was significant and large, $t(10) = 6.15$, $p < .001$, $dz = 1.85$, indicating that even in this comparatively "more available" area, needs still outpace access. Professionals emphasized core skills required to manage school alongside adult responsibilities: "*time management skills*" (4.38 vs. 3.50), "*problem-solving skills*" (4.50 vs. 3.63), and "*positive emotion management skills*" (4.50 vs. 3.63). Importantly, "*financial management skills*" (4.88 vs. 3.75; Difference = 1.13) reflected a notable gap-consistent with research showing that economic insecurity and limited financial buffers are major barriers to enrollment and persistence for foster-experienced students (Salazar, et al., 2016; Watt et al., 2013). Although cluster means for Importance (Rating 1) did not significantly differ across clusters (all *ps* > .05), Availability (Rating 2) did show targeted differences. Cluster 2 was rated as more available than Cluster 5, $t(24) = 3.41$, $p=.002$, $r=.57$, and more available than Cluster 6, $t(29) = 2.30$, $p=.029$, $r=.39$. Practically, professionals perceived independent living skill supports (e.g., skill-building, self-determination) as comparatively more accessible than broader system-coordination and postsecondary persistence infrastructure.

Cluster 3: Professional Support for Education and Employment

Professional Support for Education and Employment was rated as important (M = 4.50) but less available (M = 3.58), with a positive difference (0.92). The Importance-Availability gap was significant and large, $t(18) = 7.54$, $p < .001$, $dz = 1.73$. Illustrative gaps included "*study skills*" (4.50 vs. 3.50; Difference = 1.00), "*training of foster care liaison*" (4.38 vs. 3.38; Difference = 1.00), and "*supervised independent living on college campus or nearby*" (4.63 vs. 3.00; Difference = 1.63). These findings align with evidence that structured advocacy, mentoring, and campus-based programming are strongly implicated in improved access and persistence for students with foster care experience, but availability remains uneven across contexts and institutions (Salazar et al., 2016; Salazar et al., 2023).

Cluster 4: Access to Basic and Mental Health Needs

Access to Basic and Mental Health Needs was rated highly important (M = 4.46) and moderately available (M = 3.74), producing a difference of 0.72. The within-cluster gap was significant with a large effect, $t(18) = 4.72$, $p < .001$, $dz = 1.08$. Statement-level gaps emphasized disability accommodations and childcare: "accommodation for their disability related to trauma" (4.75 vs. 3.25; Difference = 1.50) and "childcare" (4.50 vs. 3.38; Difference = 1.12). At the same time, multiple basic-needs supports were rated relatively high on Availability and flagged as go-zone items (e.g., "*food pantry*," "*internet access*," "*mental health services-medications*"), reflecting pockets of infrastructure that may already be in place at many campuses/communities. This pattern is consistent with research arguing that basic needs security and trauma-responsive mental health supports are foundational to persistence for foster-experienced college students (Lietz & Cheung, 2023; Tobolowsky et al., 2019). Cluster 4 was rated as more available than Cluster 5 on Rating 2, $t(28) = 2.67$, $p=.013$, $r=.45$. In context, professionals perceived direct basic-needs/mental-health supports as more accessible than broader transition-system coordination mechanisms.

Cluster 5: Coordinated Systems for Transition to Independence

Coordinated Systems for Transition to Independence showed one of the largest perceived gaps: Importance M = 4.54 vs. Availability M = 3.43 (Difference = 1.11). This discrepancy was statistically significant and extremely large, $t(38) = 13.53$, $p < .001$, $dz = 2.17$, indicating a pronounced perception that system-level transition supports are not keeping pace with need. Professionals identified substantial barriers in logistics and coordination, including "*transportation*" (4.88 vs. 3.13; Difference = 1.75), "*smooth transition of critical documentation…*" (4.88 vs. 3.38; Difference = 1.50), and "*tangible financial support for books and supplies*" (5.00 vs. 3.50; Difference = 1.50). These results are consistent with the broader literature emphasizing that foster-experienced students often face fragmented systems and administrative discontinuities during transitions that directly disrupt enrollment, aid access, and persistence (Watt et al., 2013; Tobolowsky et al., 2019).

Cluster 6: Postsecondary Access and Persistence Supports

Postsecondary Access and Persistence Supports was rated as the most important cluster (M = 4.57) but among the least available (M = 3.50; Difference = 1.07). The Importance-Availability gap was significant and large, $t(48) = 10.48$, $p < .001$, $dz = 1.50$. Professionals emphasized barriers in housing and peer/community belonging supports: "*housing in community colleges*" (4.75 vs. 2.50; Difference = 2.25) and "*peer support from college members who have lived experiences in foster care*" (4.50 vs. 2.88; Difference = 1.62). At the same time, many financial-aid and navigation supports were flagged as go-zone items, including "*FAFSA application support*," "*tuition and fee waiver*," "*ETV eligibility*," "*assistance with college applications*," and "*help to connect with campus resources*". This combination suggests that while some policy/aid mechanisms and navigation supports may be comparatively present, the persistence ecosystem (especially housing and peer connection) remains constrained-consistent with empirical work documenting uneven campus support coverage and persistent barriers to completion among foster-experienced students (Salazar et al., 2016; Watt et al., 2013; Tobolowsky et al., 2019).

Discussion

This study examined what professionals believe former foster youth need to successfully pursue postsecondary education. Using concept mapping, participants sorted and rated 77 statements by importance and availability. These statements clustered into six areas of support. Across all clusters, importance consistently exceeded availability, with large effect sizes (d = 1.03–2.17). This pattern suggests a systemic gap rather than isolated service shortages. Professionals clearly see that foster youth need far more support than systems currently provide, and this perception was seen across every domain.

Cluster 1 highlights the tension between individual responsibility and system accountability. Professionals rated these supports as highly important but only moderately available. Items related to family relationships and school stability showed particularly large gaps. "Youth's own accountability" appeared as a go-zone item, suggesting that professionals believe young people are motivated and capable. However, the broader gap indicates that systems are not adequately supporting that agency. Trauma-informed therapy, disability accommodations, and stable school placements remain inconsistent. These findings align with research showing that resilience is shaped by both internal strengths and support systems for former foster youth (Cheung et al., 2021).

Cluster 2 was the most available cluster overall, yet it still showed a large gap between importance and access. Financial management stood out as the largest unmet need. This parallels prior research that documents economic instability is a persistent barrier for college access for foster-experienced students (Courtney et al., 2011; Dworsky & Pérez, 2010; Salazar et al., 2016). "Self-determination" again appeared as a go-zone item. These findings reinforce that motivation is present, but the support is not even.

Cluster 3 emphasizes the importance of structured adult guidance. The sample rated these supports as highly important, but availability lagged substantially. The largest gap involved supervised independent living near college campuses, pointing to a lack of supportive housing options. Prior research has shown that when foster youth had access to independent living, they were more likely to attain postsecondary education (Kim et al., 2019). Gaps were also evident in campus-based expertise, such as trained foster care liaisons and study skills support. A study on Texas based campus support programs found that well-resourced campus support programs at 4-year institutions are linked to significantly higher student retentions for former foster youth (Watt et al., 2024). Professionals appear to view mentoring and advocacy as foundational supports that remain inconsistently available.

Cluster 4 findings were more mixed. Several items emerged as go-zone supports, suggesting that some basic needs infrastructure are working. Food access, internet, and general mental health services appear more available than in other areas. However, significant gaps remain in more specialized supports. Trauma-related disability accommodations and childcare were particularly limited. These needs often require individualized responses and sustained coordination. This cluster was rated as more available than Cluster 5, indicating that campus-based services may be advancing faster than broader transition systems. A study by Tobolowsky and colleagues (2019) found that former foster youth find that challenges during postsecondary education include lack of emotional support.

Cluster 5 showed the largest gap in the study. Professionals identified major breakdowns in transition planning and coordination. Key gaps included transportation, transfer of critical documents, and financial support for books and supplies. Delays or failures in these areas can disrupt enrollment, financial aid, and academic stability. Former foster youth are expected to assume adult responsibilities without stable supports or systems in place. The transition out of foster care represents a significant structural barrier to higher education. Foster youth commonly face transportation and financial challenges while in care (Collins et al., 2020; Salazar et al., 2021), which likely persist as they navigate postsecondary education.

Cluster 6 was rated as the most important and among the least available. Policy-level supports such as tuition waivers, FAFSA assistance, ETV eligibility, and college application help were identified as go-zone items. When these mechanisms are in place, professionals view them as both accessible and effective. This aligns with research linking targeted financial aid to improved enrollment outcomes (Okpych & Courtney, 2020; Okpych & Courtney, 2021). However, housing at community colleges showed the largest gap in the entire study. Peer support from individuals with lived foster care experience was also limited. These findings suggest that while students may gain access to college, systems often fail to support lasting success. Previous studies indicate that financial aid alone does not close the gap between access and completion of postsecondary education. Instead, ongoing supports with housing, relationships, and stability play a larger role in graduation rates (Unrau et al., 2017; Tobolowsky et al., 2019).

Implications for Practice

This study highlights the importance of practice approaches that align with coordinated, trauma-informed, and developmentally appropriate systems of support. Professionals consistently identified former foster youth as motivated and capable. Challenges with supporting former foster youth revolved around gaps in housing stability, transition planning, and sustained adult guidance. Practitioners working in child welfare and higher education should focus on strengthening cross-system coordination, particularly during the transition out of care. This includes ensuring timely transfer of critical documents, access to transportation, and tangible financial supports for basic academic expenses. On college campuses, expanding trained foster care liaisons, supervised independent living options near campuses, and peer support programs led by individuals with lived experience may help address gaps in persistence and belonging. Mentoring, trauma-informed mental health care, and stable housing play a critical role in supporting postsecondary success for former foster youth.

Implications for Policy

These findings suggest that policies should support foster youth throughout their college experience, from enrollment through graduation. Programs like tuition waivers, FAFSA support, and ETV funding are working when they are available and easy to use, and professionals clearly see their value. However, many of the biggest challenges students face come from gaps between systems. Policies should focus on making the transition out of foster care smoother. In addition to financial support, this includes ensuring foster youth leave care with their important documents and have reliable transportation. There is also a

strong need for policies that encourage colleges, especially community colleges, to provide housing options and designate trained staff who understand the needs of students from foster care. Consistent access to supports beyond age 18 could reduce disruptions during the transition to adulthood. Together, these findings emphasize the importance of policies that align child welfare, housing, and higher education systems to support former foster youth students throughout their postsecondary education.

Implications for Research

The large and consistent gaps across all clusters point to the importance of research that focuses on how systems work together. Future studies should explore how coordination across child welfare, higher education, housing, and financial aid systems influences postsecondary retention and graduation for former foster youth. Longitudinal research is needed to track how gaps in transition supports and housing availability shape outcomes in retention and graduation rates. The findings emphasize the need to better understand how non-financial supports, such as relationships, mentoring, and institutional supports, influence outcomes beyond initial college access. Research that centers the voices of former foster youth students themselves would further deepen understanding of how these supports are experienced and which combinations are most impactful across all levels of postsecondary education.

Strengths and Limitations

This study has several key strengths. First, concept mapping offered a structured way for professionals to sort and rate ideas. This approach produces visual and statistical outputs that are easy to interpret and useful for practice and policy. Second, centering professionals addresses a gap in the literature. While much research focuses on former foster youth, professionals play a critical role in shaping access to services. Their perspectives provide insight into how supports function within real systems and everyday practice. Third, the use of both go-zone analysis and paired-samples t-tests strengthened interpretation of the findings. Go-zone analysis highlighted areas of relative system strength, while t-tests confirmed consistent and large gaps between importance and availability across all clusters (Kane & Trochim, 2007; Rosas, 2017). However, rather than seeking statistical generalizability, concept mapping emphasizes the systematic organization of expert or stakeholder knowledge. Because the participants all possessed direct lived experience with foster care and postsecondary education, the resulting maps represent the perspectives of individuals with substantial experiential expertise regarding the phenomenon under study (Kane & Trochim, 2007; Rosas, 2017).

Several limitations should also be noted. The small sample size (n = 8) limits generalizability, however, concept mapping studies commonly employ relatively small samples for sorting and rating tasks (Kane & Trochim, 2007; Rosas, 2017; Rosas & Kane, 2012). As such, the findings should not be interpreted as statistically representative. Rather, they provide an in-depth conceptual understanding of how this group prioritized supports and perceived gaps in service availability. Furthermore, the single geographic location limits the extent to which findings can be applied to other states. The study also relied solely on professionals' perceptions, which may differ from the experiences of former foster youth students themselves. In addition, the cross-sectional design captured conditions at one point in time. Additionally, the clusters reflect a meaningful way participants organized the data, not a fixed structure. Future studies should examine whether similar conceptual structures emerge among larger and more geographically diverse samples, including, for example, youth who attempted college but did not enroll or persist.

Conclusion

This study provides a comprehensive, practice-informed view of how professionals perceive the supports necessary for young adults with foster care experience to successfully pursue postsecondary education. Across six domains, importance consistently outweighed availability, pointing to a systemic shortfall rather than isolated service gaps. While professionals expressed confidence in youths' motivation and resilience, they also identified persistent failures in housing, transition coordination, and sustained adult support. The findings suggest that improving postsecondary outcomes for foster-experienced students requires more than expanding access to financial aid. It requires stable housing, coordinated transition systems, trauma-informed practices, and meaningful relational support. Addressing these gaps at both the institutional and system levels is critical to moving beyond access and toward equitable postsecondary persistence and completion for former foster youth.

Declarations

Author Contribution

All authors contributed to the manuscript.

Data Availability

The data supporting the findings of this study are not publicly available because they contain potentially identifiable participant information and are subject to Institutional Review Board (IRB) restrictions and the informed consent provided by participants. Therefore, the data are not available for public sharing.

References

1. Arnett, J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist, 55*(5), 469–480.
2. Bederian-Gardner, D., Hobbs, S., Ogle, C., Goodman, G., Cordón, I., Bakanosky, S., Narr, R., Chae, Y., Chong, J., & the NYTD/CYTD Research Group. (2018). Instability in the lives of foster and nonfoster youth: Mental health impediments and attachment insecurities. *Children and Youth Services Review, 84*, 159-167.

3. Blakeslee, J., & Best, J. (2019). Understanding support network capacity during the transition from foster care: Youth-identified barriers, facilitators, and enhancement strategies. *Children and Youth Services Review, 96,* 220-230.
4. Briggs, E., Greeson, J., Layne, C., Fairbank, J., Knoverek, A., & Pynoos, R. (2012). Trauma exposure, psychosocial functioning, and treatment needs of youth in residential care: Preliminary findings from the NCTSN core data set. *Journal of Child & Adolescent Trauma, 5*(1), 1-15.
5. Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Harvard University Press.
6. Cheung, J., Lietz, C., Carpenter, B., Sitz, E., & Lietz, B. (2021). Cultivating resilience in college students with a foster care background. *Journal of Public Child Welfare*, *15*(2), 182-202.
7. Clemens, E., Klopfenstein, K., Lalonde, T., & Tis, M. (2018). The effects of placement and school stability on academic growth trajectories of students in foster care. *Children and Youth Services Review, 87*, 86-94.
8. Collins J., Thomas L., Vugrin, M. (2020). Life is a highway: Driver's license acquisition and social determinants for youth in foster care and their non-foster care peers. *Nursing Forum*, 56, 95–102.
9. Courtney, M., Dworsky, A., Brown, A., Cary, C., Love, K., & Vorhies, V. (2011). *Midwest evaluation of the adult functioning of former foster youth: Outcomes at age 26*. Chapin Hall at the University of Chicago.
10. Courtney, M., Okpych, N., Harty, J., Feng, H., Park, S., Powers, J., Nadon, M., Ditto, D., & Park, K. (2020). *Findings from the California Youth Transitions to Adulthood Study (CalYOUTH): Conditions of youth at age 23*. Chapin Hall at the University of Chicago.
11. Crawford, B., Pharris, A., & Dorsett-Burrell, R. (2018). Risk of serious criminal involvement among former foster youth aging out of care. *Children and Youth Services Review, 93,* 451-457.
12. Day, A., Dworsky, A., Fogarty, K., & Damashek, A. (2011). An examination of postsecondary retention and graduation among foster care youth enrolled in a four-year university. *Children and Youth Services Review, 33*(11), 2335–2341.
13. Dworksy, A., Napolitano, L., & Courtney, M. (2013). Homelessness during the transition from foster care to adulthood. *American Journal of Public Health, 103*(S2), S318-S323.
14. Dworsky, A., & Pérez, A. (2010). Helping former foster youth graduate from college through campus support programs. *Children and Youth Services Review, 32*(2), 255-263.
15. Geiger, J., & Beltran, S. (2017). Experiences and outcomes of foster care alumni in postsecondary education: A review of the literature. *Children and Youth Services Review, 79*, 186-197.
16. Geiger, J., Hanrahan, J., Cheung, J., & Lietz, C. (2016). Developing an on-campus recruitment and retention program for foster care alumni. *Children and Youth Services Review, 61*, 271-280.
17. Geiger, J., Piel, M., Day, A., & Schelbe, L. (2018). A descriptive analysis of programs serving foster care alumni in higher education: Challenges and opportunities. *Children and Youth Services Review, 85*, 287-294.
18. Gypen, L., Vanderfaeillie, J., De Maeyer, S., Belenger, L., & Van Holen, F. (2017). Outcomes of children who grew up in foster care: Systematic-review. *Children and Youth Services Review, 76,* 74-83.
19. Hernandez, L., Day, A., & Henson, M. (2017). Increasing college access and retention rates of youth in foster care: An analysis of the impact of 22 state tuition waiver programs. *Journal of Policy Practice, 16*(4), 397-414.
20. Hernandez, L., & Naccarato, T. (2010). Scholarships and supports available to foster care alumni: A study of 12 programs across the US. *Children and Youth Services Review, 32*(5), 758-766.
21. Huang, H., Fernandez, S., Rhoden, M.A., & Joseph, R. (2018). Serving former foster youth and homeless students in college. *Journal of Social Service Research, 44*(2), 209-222.
22. Huscroft-D'Angelo, J., Trout, A., Bharwani, S., Brown, A., & Dittmer, C. (2022). An exploratory study of education professionals' perspectives on the educational needs of students transitioning from foster care to permanency placements. *Education & Treatment of Children, 45*(3), 263-276.
23. Kane, M., & Trochim, W. (2007). *Concept mapping for planning and evaluation*. Thousand Oaks, CA: Sage.
24. Kang-Yi, C., & Adams, D. (2017). Aging out of foster care: A systematic review and implications for policy, research, and practice. *The Journal of Behavioral Health Services & Research, 44,* 25-51.
25. Kim, Y., Ju, E., Rosenberg, R., & Farmer, E. (2019). Estimating the effects of independent living services on educational attainment and employment of foster care youth. *Children and Youth Services Review*, *96*, 294-301.
26. Landers, P.A. (2024). *John H. Chafee foster care program for successful transition to adulthood.* Available at https://www.congress.gov/crs-product/IF11070
27. Lietz, C., & Cheung, J. (2023). Meeting the mental health needs of college students with a background in foster care. *Child and Adolescent Social Work Journal, 40*, 193-206.
28. Lipien, L., Ismajli, F., & Wolgemuth, J. (2023). Impact of COVID-19 on the educational experiences of youth in foster care: Caseworker perspectives. *Journal of Public Child Welfare, 17*(3), 475-496.
29. Miller, J. , & Jones, B. (2015). Using concept mapping as a planning tool: Child welfare citizen review panels. *Evaluation and Program Planning*, *53*, 99–106.
30. Munson, M., & McMillen, J. (2009). Natural mentoring and psychosocial outcomes among older youth transitioning from foster care. *Children and Youth Services Review, 31*(1), 104–111.
31. Okpych, N., & Courtney, M. (2014). Does education pay for youth formerly in foster care? comparison of employment outcomes with a national sample. *Children and Youth Services Review, 43*, 18-28.

32. Okpych, N., & Courtney, M. (2020). The relationship between extended foster care and college outcomes for foster care alumni. *Journal of Public Child Welfare, 14*(2) 254-276.
33. Okpych, N., & Courtney, M. (2021). Barriers to degree completion for college students with foster care histories: Results from a 10-year longitudinal study. *Journal of College Student Retention: Research, Theory & Practice, 23*(1) 28–54.
34. Okpych, N., Park, S., Powers, J., Harty, J., & Courtney, M. (2023). Relationships that persist and protect: The role of enduring relationships on early-adult outcomes among youth transitioning out of foster care. *The Social Service Review, 97*(4), 619-674.
35. Okpych, N., Park, S., Sayed, S., & Courtney, M. (2020). The roles of campus-support programs (CSPs) and education and training vouchers (ETVs) on college persistence for youth with foster care histories. *Children and Youth Services Review, 111*, 104891.
36. Okpych, J., Whitman, K., Lee, J., Neria-Piña, L., Jackson, A., & Day, M. (2025). Secondary and postsecondary education outcomes of students with experience in foster care: Systematic review of the literature from 2000–2023. *AERA Open, 11*
37. Piccarreta, R., & Lior, O. (2010). Exploring sequences: A graphical tool based on multi- dimensional scaling. *Journal of the Royal Statistical Society: Series A (Statistics in Society), 173*(1), 165–184.
38. Randolph, K., & Thompson, H. (2017). A systematic review of interventions to improve post-secondary educational outcomes among foster care alumni. *Children and Youth Services Review, 79,* 602-611.
39. Rosas, S. R. (2017). Group concept mapping methodology: Toward an epistemology of group conceptualization, complexity, and emergence. *Quality & Quantity, 51*, 1403–1416.
40. Rosas, S., & Kane, M. (2012). Quality and rigor of the concept mapping methodology: A pooled study analysis. *Evaluation and Program Planning, 35*(2), 236–245.
41. Rosenberg, R., & Kim, Y. (2018). Aging out of foster care: Homelessness, post-secondary education, and employment. *Journal of Public Child Welfare, 12*(1), 99-115
42. Ryan, J., Hurley, Z., & Randall, K. (2025). Addressing the educational needs of foster children. *Beyond Behavior*, *34*(1), 35-45.
43. Salazar, A. (2013). The value of a college degree for foster care alumni: Comparisons with general population samples. *Social Work, 58*(2), 139-150.
44. Salazar, A., Haggerty, K., & Roe, S. (2016). Fostering higher education: A postsecondary access and retention intervention for youth with foster care experience. *Children & Youth Services Review, 70*, 46-56.
45. Salazar, A., Lopez, J., Spiers, S., Gutschmidt, S., & Monahan, K. (2021). Building financial capability in youth transitioning from foster care to adulthood. *Child & Family Social Work, 26*(3), 442-453.
46. Salazar, A., Spiers, S., Bennett, M., & Haggerty, K. (2023). Fostering higher education: Preliminary findings from a small randomized pilot study. *Children & Youth Services Review, 150*, 106991.
47. Thompson, A., Greeson, J., & Brunsink, A. (2016). Natural mentoring among older youth in and aging out of foster care: A systematic review. *Children and Youth Services Review, 61*, 40-50.
48. Tobolowsky, B., Scannapieco, M., Aguiniga, D., & Madden, E. (2019). Former foster youth experiences with higher education: Opportunities and challenges. *Children and Youth Services Review, 104*, 104362.
49. Trochim, W. M. K. (1989). An introduction to concept mapping for planning and evaluation. *Evaluation and Program Planning, 12*(1), 1-16.
50. Trump, D. J. (2025). *Exec. Order No. 14359, 3 C.F.R. (2025)*, 90 FR 52227.
51. U.S. Bureau of Labor Statistics. (2025, May). *Education pays, 2024.* Career Outlook. Retrieved April 6, 2026, from https://www.bls.gov/careeroutlook/2025/data-on-display/education- pays.htm
52. U.S. House Committee on Ways & Means (2026). *Bipartisan foster care modernization legislation advances out of ways and means after foster youth and First Lady Melania Trump advocacy.* Available from https://waysandmeans.house.gov/2026/04/29/bipartisan-foster-care-modernization-legislation-advances-out-of-ways-and-means-after-foster-youth-and-first-lady-melania-trump-advocacy/
53. Unrau, Y., Dawson, A., Hamilton, R., & Bennett, J. (2017). Perceived value of a campus-based college support program by students who aged out of foster care. *Children and Youth Services Review, 78*, 64-73.
54. Wang, Y., & LaBrenz, C. (2025). 'Personal relationship is really the backbone of everything:' Exploring professionals' perceptions on the relationships of transition-age youth in foster care. *Journal of Social and Personal Relationships, 42*(7), 1657-1677.
55. Watt, T., Norton, C., & Jones, C. (2013). Designing a campus support program for foster care alumni: Preliminary evidence for a strengths framework. *Children and Youth Services Review, 35*(5), 1408-1417.
56. Watt, T., Pierson, C., Lord, K., & Bustillos, S. (2024). Higher education outcomes for students who experienced foster care in Texas: Exploring the impact of liaison legislation and campus support programs. *Child and Adolescent Social Work Journal*, 1-12.

Tables

Table 1: Professionals

(What do young adults from foster care need for pursuing postsecondary education?)

Clusters & Statements	Importance	Availability	Differenc
Trauma-Informed Personal Resilience	4.35	3.52	0.83
Ability to handle situations with biological family	4.38	2.88	1.50
Religious belief	3.38	3.38	0.00
School stability	4.63	3.38	1.25
Self-confidence	4.50	3.88	0.62
Trauma-related therapy	4.38	3.63	0.75
Youth's own accountability**	4.88	4.00	0.88
Independent Living Skill Development	4.54	3.77	0.77
Positive emotion management skills	4.50	3.63	0.87
Financial management skills**	4.88	3.75	1.13
Self-independent	4.25	4.13	0.12
Problem-solving skills	4.50	3.63	0.87
Self-determination**	4.75	4.00	0.75
Time management skills	4.38	3.50	0.88
Professional Support for Education and Employment	4.50	3.58	0.92
Employment	4.38	3.75	0.63
Learn about resources**	4.75	3.75	1.00
Mentoring for decision making	4.38	3.88	0.50
Perseverance**	4.75	4.00	0.75
Preparation for Adult Living (PAL) program services on independent living skills training	4.38	3.75	0.63
Study skills	4.50	3.50	1.00
Supervised Independent Living (SIL) on college campus or nearby	4.63	3.00	1.63
Training of foster care liaison	4.38	3.38	1.00
Workshops using role plays to teach youths to prepare for job interviews	4.13	3.00	1.13
Assistance with obtaining housing vouchers**	4.75	3.75	1.00
Access to Basic and Mental Health Needs	4.46	3.74	0.72
Accommodation for their disability related to trauma	4.75	3.25	1.50
Childcare	4.50	3.38	1.12
Extended foster care	4.50	3.88	0.62
Food pantry**	4.63	4.13	0.50
Internet access**	4.75	4.00	0.75
Less expensive cell phone data plans	4.38	3.25	1.13
Mental health services - counseling	4.38	4.00	0.38
Public library	3.50	3.88	-0.38
Case management assistance	4.50	3.50	1.00
Mental health services - medications**	4.75	4.13	0.62
Coordinated Systems for Transition to Independence	4.54	3.43	1.11
Clear communication on available resources	4.75	3.50	1.25
Earlier communication on available resources**	4.63	3.63	1.00
Free GED program	4.13	3.38	0.75
Helping youth build consistency into their lives	4.63	3.50	1.13

Helping youth stick with resources	4.38	3.25	1.13
Housing in more youth-oriented and longer-stay shelters	4.50	3.13	1.37
Preparation for Adult Living (PAL) program services on financial assistance	4.75	3.25	1.50
Smooth transition of critical documentations from foster parents/other caregivers to youth at time of exiting care	4.88	3.38	1.50
Stable supports who advise them to think about their future**	4.88	3.63	1.25
Support to accept and access mental health services	4.38	3.63	0.75
Tangible financial support for books and supplies	5.00	3.50	1.50
Transportation	4.88	3.13	1.75
Youth being educated about the importance of documentations before exiting care**	4.63	3.63	1.00
Accessible GED program	3.88	3.38	0.50
Assistance with obtaining a computer	4.63	3.25	1.38
Collaboration between support systems**	4.63	3.75	0.88
Connect with community resources**	4.63	3.75	0.88
Connect with high school counselor	4.13	3.38	0.75
Frequent check-ins with students	4.63	3.25	1.38
Connect with workforce program	3.88	3.38	0.50
Postsecondary Access and Persistence Supports	4.57	3.50	1.07
Advice on choosing schools that take tuition waivers**	4.63	3.63	1.00
Academic advising availability	4.50	3.75	0.75
Campus social events	4.25	3.63	0.62
College/postsecondary education application made accessible**	4.88	3.75	1.13
Education and Training Voucher (ETV) eligibility**	4.88	4.13	0.75
Exposure to postsecondary education opportunities	4.50	3.25	1.25
FAFSA application support**	5.00	3.88	1.12
Housing in community colleges	4.75	2.50	2.25
In-person classes to get hands-on training	4.13	3.38	0.75
Knowledgeable foster care liaison	4.75	3.50	1.25
Mentoring by people with college experiences	4.13	3.38	0.75
More individualized path through education	4.25	3.25	1.00
On-campus housing during academic year and breaks	4.88	3.50	1.38
One-on-one case management in foster care campus support programs	4.38	3.50	0.88
Online college programs	3.63	3.50	0.13
Peer support from college members who have lived experiences in foster care	4.50	2.88	1.62
Tuition and fee waiver**	5.00	4.50	0.50
Tutoring in elementary, middle, and high schools	4.50	3.13	1.37
Vocational schools/trade schools and shorter programs covered by tuition waivers**	4.88	3.63	1.25
Advice on education**	4.75	3.63	1.12
Assistance with college applications**	5.00	3.75	1.25
Collaborations between community colleges and four year universities	4.38	3.50	0.88
Help to connect with campus resources**	4.75	3.63	1.12
Summer transition programs in college campus	4.38	2.88	1.50
Teach how to communicate with professors	4.63	3.38	1.25
NOTE: *Importance-Availability=Difference; **HIGH Importance and HIGH Difficulty Go-Zone Statements			

Table 2: Professionals' T-Tests				
Rating 1 vs. Rating 2	**t-value**	**df**	**p-value**	**sig. (higher)**
Cluster 1	t=3.409*	df=10	p=.007	Rating 1
Cluster 2	t=6.152*	df=10	p=.000	Rating 1
Cluster 3	t=7.537*	df=18	p=.000	Rating 1
Cluster 4	t=4.720*	df=18	p=.000	Rating 1
Cluster 5	t=13.530*	df=38	p=.000	Rating 1
Cluster 6	t=10.477*	df=48	p=.000	Rating 1
Rating 1 - Cluster vs. Cluster	**t-value**	**df**	**p-value**	**sig. (higher)**
1 vs. 2	t=0.890	df=10	p=.394	ns
1 vs. 3	t=0.721	df=14	p=.483	ns
1 vs. 4	t=0.489	df=14	p=.632	ns
1 vs. 5	t=0.897	df=24	p=.379	ns
1 vs. 6	t=1.064	df=29	p=.296	ns
2 vs. 3	t=0.387	df=14	p=.705	ns
2 vs. 4	t=0.564	df=14	p=.582	ns
2 vs. 5	t=0.037	df=24	p=.971	ns
2 vs. 6	t=0.261	df=29	p=.796	ns
3 vs. 4	t=0.294	df=18	p=.772	ns
3 vs. 5	t=0.396	df=28	p=.696	ns
3 vs. 6	t=0.765	df=33	p=.450	ns
4 vs. 5	t=0.573	df=28	p=.571	ns
4 vs. 6	t=0.837	df=33	p=.409	ns
5 vs. 6	t=0.338	df=43	p=.737	ns
Rating 2 - Cluster vs. Cluster	**t-value**	**df**	**p-value**	**sig. (higher)**
1 vs. 2	t=1.418	df=10	p=.187	ns
1 vs. 3	t=0.294	df=14	p=.773	ns
1 vs. 4	t=1.170	df=14	p=.262	ns
1 vs. 5	t=0.570	df=24	p=.574	ns
1 vs. 6	t=0.151	df=29	p=.881	ns
2 vs. 3	t=1.414	df=14	p=.179	ns
2 vs. 4	t=0.238	df=14	p=.815	ns
2 vs. 5	t=3..408*	df=24	p=.002	Cluster 2
2 vs. 6	t=2.299*	df=29	p=.029	Cluster 2
3 vs. 4	t=1.086	df=18	p=.292	ns
3 vs. 5	t=1.273	df=28	p=.214	ns
3 vs. 6	t=0.610	df=33	p=.546	ns
4 vs. 5	t=2.671*	df=28	p=.013	Cluster 4
4 vs. 6	t=1.827	df=33	p=.077	ns
5 vs. 6	t=0.714	df=43	p=.479	ns
Note: *Significant at $p \leq 0.05$				

Figures

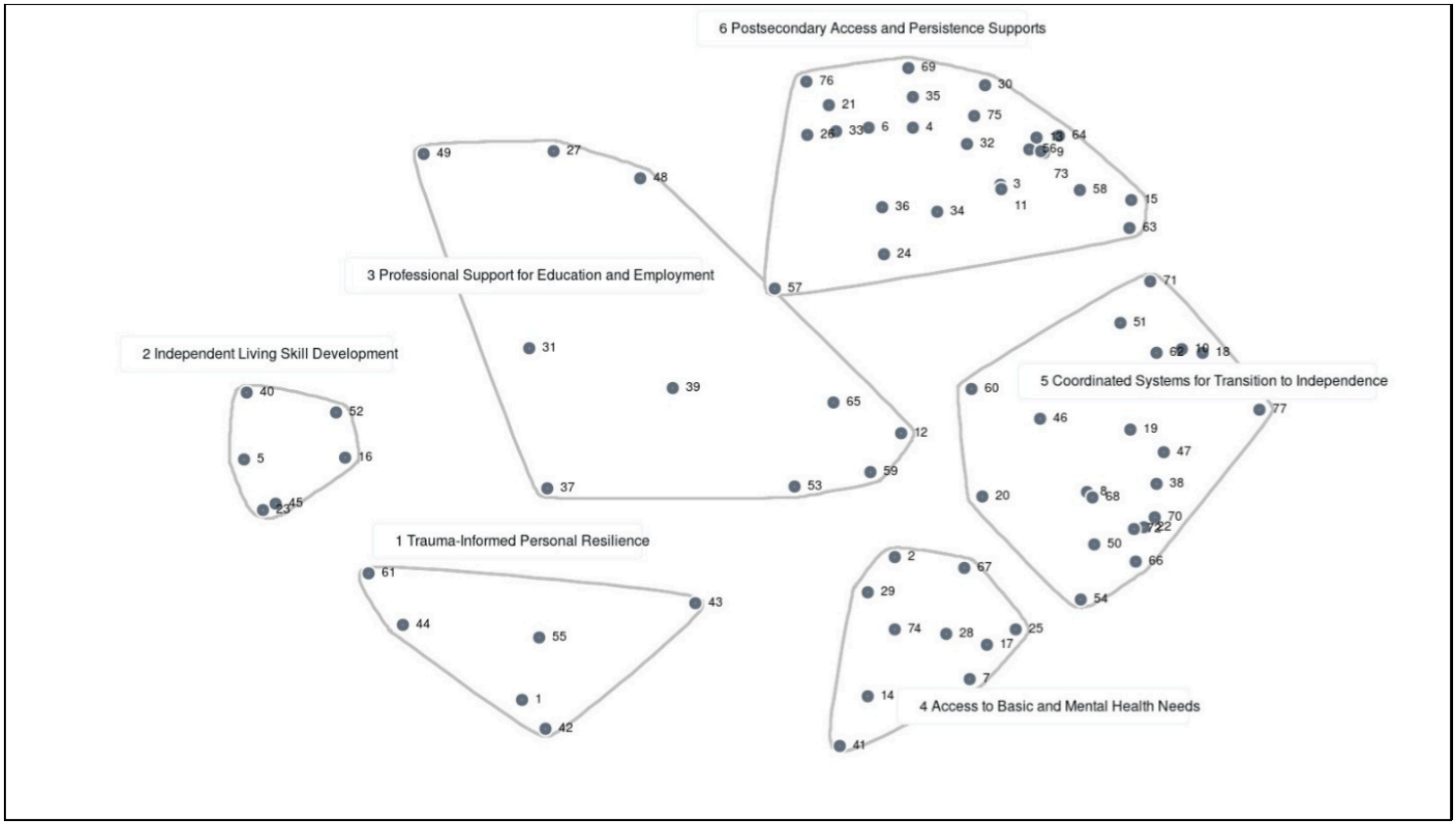


Figure 1

Professionals' Cluster Map (What do young adults from foster care need for pursuing postsecondary education?)