Review Article

What happens after high school?
A review of independent living practices to support youth with disabilities transitioning to adult life

David R. Mann*a,* and Mira Wangb

a Mathematica, Princeton, NJ, USA
b Mathematica, Washington, DC, USA

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Abstract.

BACKGROUND: Centers for Independent Living (CILs) can help out-of-school youth with disabilities. CIL services may be particularly important for minority youth with disabilities that face additional transition barriers.

OBJECTIVE: This literature review documents existing practices that might aid CILs as they seek to help youth, including minority youth, with disabilities transition to adult life.

METHODS: First, we conducted a literature search to identify practices that might help CILs assist youth with disabilities transition to independent living (IL) in early adult life. Then we examined various literature syntheses of postsecondary transition interventions with evidence of promise or efficacy for any IL-related outcome—regardless of whether the intervention targeted youth with disabilities.

RESULTS: We discovered a variety of practices CILs might learn from or consider adopting to help youth with disabilities transition to adult life. However, the practices rarely focused on minority youth and usually had limited or no evidence about whether they improved IL outcomes.

CONCLUSIONS: The limitations of the evidence we found suggest the need to develop and test interventions that help transition age youth with disabilities—especially minority youth with disabilities—achieve their IL goals.

Keywords: Independent living, Centers for Independent Living, youth, disability, minority, transition

1. Introduction

In 2014, the Workforce Innovation and Opportunity Act (WIOA) required Centers for Independent Living (CILs), community-based organizations that advance independent living (IL) for people with disabilities, to assist youth with disabilities who are transitioning to adult life after completing or ending high school (secondary school). Because they serve all people with disabilities, CILs have traditionally assisted youth as they achieve their IL goals in transitioning to adult life—that is, life after secondary school attendance, completion, or graduation.
WIOA’s mandate intensifies CILs’ provision of transition services to adult life, making it a core service. CILs provide individual and community services in support of IL. The main objective of IL is to empower people with disabilities, giving them more control of the decisions that affect their lives. IL goals are wide-ranging and self-determined, and can include formal education to achieve financial independence, or assistance to perform daily activities independently, such as taking public transportation or going grocery shopping alone. To advance IL for people with disabilities, CILs help their customers achieve their personal IL goals and work to advance IL policies in the broader community. According to the Rehabilitation Act of 1973 as amended, CILs must provide customer services in five core categories: peer support and mentoring, information and referral, individual and systems advocacy, independent living skills training, and transition.

With blended funding from federal and state governments, CILs are structured to meet the needs of customers and reflect the ethos of IL. As community-based, inclusive organizations, CILs understand the unique challenges that people with disabilities experience locally and the resources available to help. CILs serve all customers who request services, regardless of disability type or IL goal. Consistent with the IL goal that people with disabilities control the services they receive, the majority of each CIL’s board of directors and staff must have a disability. This requirement helps ensure that CIL staff can relate to their customers’ needs and goals.

CIL services may be particularly important for minority youth with disabilities that face additional transition barriers. Relative to youth without disabilities, youth with disabilities tend to have less favorable adult outcomes (Lipscomb et al., 2018) and on average, minority youth with disabilities, a group that includes individuals who identify as black, African American, Hispanic, Latinx, American Indian, and/or Native American, have even poorer outcomes. For example, minority youth with disabilities are relatively less likely than non-minority youth to engage in paid employment during high school, which is a strong predictor of employment in early adult life (Cameto et al., 2003). To improve their outcomes in adult life, many minority youth with disabilities must overcome simultaneous challenges, such as poverty, disconnections to work and education, and disability-related barriers. CILs may require tailored strategies to help minority youth with disabilities overcome these challenges while transitioning to adult life.

As CILs serve more youth transitioning to adult life, there is a need to identify (and possibly develop) programs or interventions to support CILs in their new role. Promising or evidence-based programs and interventions that already exist should be shared and potentially adopted by CILs. If no or few evidence-based interventions exist, then the intervention development process should be grounded in a thorough understanding of promising practices described in existing literature. CILs should also be informed of any literature about how to facilitate successful postsecondary transitions for minority youth with disabilities.

This review documents the existing literature on transition practices to adult life that might be helpful to CILs as they increasingly serve minority youth with disabilities. Our review addresses three research questions:

1. Among CILs and other community organizations, what evidence-based practices promote independent living in adult life for youth with disabilities?
2. What evidence-based practices promote successful transitions to adult life among youth with or without disabilities or with or without minority backgrounds?
3. What types of evidence are available, and how rigorous is that evidence?

2. Methods

Using the WIOA youth transition service criteria for CILs, we looked for evidence focused on improving the IL-related outcomes of youth, including minority youth, with disabilities who were transitioning to adult life and between the ages of 14 and 25. As an outcome, IL was broadly defined, and refers to improving a person’s ability to determine for themselves how their lives will be led. In this context, IL can include education, employment, assistance with daily tasks, social norms, and a broad range of other activities. We defined minority youth as individuals who identify as black, African American, Hispanic, Latinx, American Indian, and/or Native American. Because interventions designed to affect outcomes in adult life often begin before that transition, our search included interventions that provided services both after or in the late stages of high school, as long as their intent was to improve outcomes in early adulthood.
We divided the literature search into two arms. In the first arm, we focused on identifying promising practices that CILs and other community-based organizations could use to improve IL for transition aged youth. In the second arm, we identified interventions that have demonstrated effectiveness in facilitating successful transition for youth to adult life, regardless of their disability or minority status. This two-arm approach allowed us to tailor our searches to each research question.

In the first arm of the search, we conducted a literature search for promising practices and interventions that CILs and other community-based organizations could use to help youth, including minority youth, with disabilities achieve their IL goals while transitioning to adult life. The outcome of interest was IL. Included studies could focus on specific IL outcomes, such as employment and postsecondary education. However, we did not include specific employment- and education-related search terms in this arm, as the goal was to identify practices focused on IL interventions and programs, defined more broadly. We included articles describing specific interventions, such as comprehensive transition programs with on-site staff and curriculums, as well as principles to guide successful independent living transitions. Although we specifically looked for articles focused on minority youth, we included all articles in the search results, regardless of minority youth focus. We also included all practices and interventions in the search results, regardless of the evidence of efficacy, as long as they targeted youth and minority youth with disabilities and included independent living as an outcome of interest.

In the second arm we searched exclusively for existing literature reviews and meta-analyses of studies. By limiting our review to existing syntheses, we were able to review a broader set of effective interventions for youth entering adult life—regardless of disability or minority status—that could help CILs refine their transition services. To be included in the search results, reviews had to examine specific transition-focused interventions and summarize evidence of effectiveness. We did not include articles that described broad principles of youth transition or annotated bibliographies that did not describe evidence. These restrictions allowed us to avoid replication of past reviews and manage the scale of the search. Reviews describing interventions that occurred within or outside the context of secondary education were included, as long as the interventions focused on improving one or more outcomes in early adulthood. Unlike the first search arm, reviews included in the second arm had to have evidence showing at least one intervention that potentially improved a transition outcome. The evidence supporting the improved outcome claim could be causal or correlational.

We searched for peer-reviewed papers and gray literature published in the United States between 2002 and 2019. For both arms of the search, our search terms included various words associated with youth, including “adolescent,” “emerging adult,” or “high school”; transition to adult life, such as “complete school,” “drop out,” “graduate,” or “out of school”; disability, including “disabled,”; and programs or interventions, including “activity,” “approach,” and “demonstration.” To identify transition practices designed for minority youth in the first arm, we added search terms for racial and ethnic identities—such as African American, Hispanic, and Native American—to the first arm of the search. We also added several search terms to the second arm to account for its broader aim. The Appendix describes the refined search criteria and databases used in each arm of the search.

Each search arm was conducted separately, using a multi-step search procedure to identify and screen articles for inclusion in the review. For each arm, a specialist and the leader developed initial search criteria to conduct a pilot search, refined the criteria to focus on relevant articles, and conducted the primary search using the updated search criteria. We also added to the search results a few relevant articles from colleagues, experts in disability policy, and referees from the peer review process, one of which was published in 2020. Other articles published outside of the date range of 2002 to 2019 were not included in the search.

All articles identified by search terms or by colleagues and referees went through an iterative screening process. First, a search team member conducted a title and abstract screening of all articles. If the search team member decided an article was potentially relevant, she reviewed the article’s full text. If the search team member thought an article was relevant after the full text review, the search team leader then reviewed the article’s full text to confirm the search team member’s assessment. After reviewing all articles in a given search arm, the search team member and leader identified themes and answered research questions using the relevant articles. Table 1 provides the number of articles in each step of the search procedure.
3. Results

Our search findings fit into three broad themes described below. For each theme, we provide a general description of the associated articles, then highlight themes relevant for transition to adult life. The descriptions include article references so readers can identify the underlying articles if they want additional information. We include relevant articles regardless of their focus on out-of-school youth or minority youth with disabilities but highlight articles that are connected to transition to adult life for minority youth.

3.1. Engage customers and other community organizations to provide youth transition services

Five studies, four of which are based on surveys of CIL staff and/or clients, highlighted the importance of engaging customers and community organizations to provide youth transition services. Rehabilitation Services Administration (RSA) (2003) and O’Day et al. (2004) described findings about CIL practices from the same CIL director and client surveys, whereas Plotner, Oertle et al. (2017) and Plotner, Shogren, et al. (2017) focused mostly on CILs’ efforts to partner with local education agencies. These four survey-based studies report on services provided, populations served, and correlations between different factors. Wehmeyer and Gragoudas (2004) described a youth empowerment group intervention that CILs can deliver in partnership with schools to improve transition service delivery. Table 2 provides more information on each of these studies.

The survey results reveal CILs effectively engage youth in transition services but can continue to find new forms of engagement, especially for underserved populations. Seventy-seven percent of CIL directors claimed to provide transition-related services, and 9 percent of consumers reported receiving those services. CIL directors report increasing interest in transition services among CIL consumers, but only 56 percent of consumers said they decided on the services they would receive either by themselves or with a CIL staff member. These findings suggest that customers might benefit if CILs more clearly describe the transition services they provide and give customers the opportunity to vocalize any interest they may have in using these services (RSA, 2003; O’Day et al., 2004).

The survey results also suggest CILs might improve youth transition services by collaborating with local organizations that serve youth and families. One study reported that CILs believe in the importance of collaboration with local education agencies (LEAs), but few reported having such relationships. Through these collaborations, CILs can develop new programs, such as summer programs that provide independent living skills training, employment services, ADA training, and benefits advisement to transition age youth while they are still in school, to prepare them with skills before transitioning to adult life (RSA, 2003).

One Kansas CIL partnered with LEA staff to create an empowerment group for adolescents with intellectual and developmental disabilities, to improve youths’ self-determination skills and active involvement in transition planning. In the group sessions, students presented on their goals and accomplishments, defined their needs and explored strategies to
address their goals, learned about services offered by CILs, and finally, utilized their new skills to plan and execute a group outing. Though Wehmeyer and Graoudas (2004) did not report outcomes, the intervention demonstrated a simple and inexpensive way for CILs to engage with LEAs, pass on self-determination skills to youth, and introduce the CIL’s transition services to youth with disabilities.

CILs might also partner with parent organizations to offer self-advocacy, social, and independent living services to youth and families (Plotner, Oertle et al., 2017). One study found CILs that established strong governance and administrative structures—such as local transition planning councils or signed memorandums of understanding—and specific contacts at partner agencies were more likely to provide transition services than CILs with informal collaborative features such as trust and mutuality (Plotner, Shogren, et al., 2017).

3.2. **Promote safe and understanding environments for youth from underrepresented groups**

Though we did not find articles that provided specific implementation guidelines for effective transition practices or programs targeted to minority youth with disabilities, we found five articles that described general postsecondary transition strategies for various underrepresented groups. Table 3 provides more information on each of these studies. The articles emphasized the need to create a safe and understanding environment through both organizational and interpersonal supports and by providing access to tailored resources. For example, CILs could create pamphlets targeting underrepresented youth, develop culturally responsive forms and documentation, ensure topics related to underrepresented youth are regularly discussed, and refer underrepresented youth as needed to other tailored supports. CIL staff can also support underrepresented youth by building interpersonal relationships, abstaining from derogatory remarks, providing positive role models, and using a variety of check-in methods—such as situational assessments and youth and family interviews—to ensure youth feel supported (Dykes & Thomas, 2015).

CILs might also consider engaging, empowering, and equipping both underrepresented youth and their families, which can involve reaching across barriers and building upon youths’ existing strengths (Cote et al., 2012; Povenmire-Kirk et al., 2010; Rossetti & Burke, 2018). For youth who face language barriers, increased access to translation and interpretation services is necessary, but CILs can build upon youths’ existing strengths by linking native Spanish speakers to classes that add literacy on top of existing speaking and listening skills (Povenmire-Kirk et al., 2010). CILs can also invest in intensive community outreach, which may include visits to churches, mosques, and community events; advertisements in local media; and strong social media engagement, to increase staff knowledge of local services and connect with families from underrepresented groups (Rossetti & Burke, 2018).

**Table 3**

<table>
<thead>
<tr>
<th>Article</th>
<th>Study summary</th>
<th>Type of evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cote et al. (2012)</td>
<td>Described transition practices for culturally and linguistically diverse students with disabilities</td>
<td>Practice description</td>
</tr>
<tr>
<td>Dykes &amp; Thomas (2015)</td>
<td>Examined postsecondary transition practices for LGBTQ youth</td>
<td>Practice description</td>
</tr>
<tr>
<td>Leake et al. (2006)</td>
<td>Disability-focused review describing interventions that help culturally and linguistically diverse youth with disabilities stay in and complete postsecondary education</td>
<td>Authors do not describe the level of evidence on which their statements about efficacy are based</td>
</tr>
<tr>
<td>Povenmire-Kirk et al. (2010)</td>
<td>Interviewed school and transition professionals, Latinx youth with disabilities, and their families to identify transition services and barriers and applications for practice and research</td>
<td>Interviews</td>
</tr>
<tr>
<td>Rossetti &amp; Burke (2018)</td>
<td>Interviewed 13 providers about educating and empowering culturally and linguistically diverse families to advocate for their children with disabilities</td>
<td>Interviews</td>
</tr>
</tbody>
</table>
schedules. Staff can build trust by asking about needed support, identifying common experiences, and listening to their needs more generally, even if they go beyond traditional CIL services. If CIL staff can provide service linkage for issues such as food insecurity, healthcare access, or citizen engagement procedures, they can create space for youth and their families to focus on transition (Rosetti & Burke, 2018; Povenmire-Kirk et al., 2010). CILs might also consider the unconscious biases that they bring to discussions about “independent living” with youth from minority backgrounds. For example, Latinx youth may not prioritize living alone, but might focus instead on increasing self-sufficiency while living at home (Povenmire-Kirk et al., 2010). Finally, CILs might consider building the capacity of the family members they work with by fostering parent leaders who can share information with and support other families (Rossetti & Burke, 2018; Cote et al., 2012).

We also found useful evidence for culturally and linguistically diverse youth with disabilities with education-related IL goals. One literature review described interventions that help culturally and linguistically diverse youth with disabilities stay in and complete postsecondary education. The authors note several potentially effective interventions, such as improving English proficiency; enhancing cultural competence at the institution; linking students with peers, mentors, and role models; supplying assistive technology; and providing tuition assistance. However, although the authors provide citations, they do not describe the level of evidence on which their statements about efficacy are based (Leake et al., 2006).

3.3. Create programs targeted for youth transition

We found a wide variety of programs targeted for youth transition that provided intensive, comprehensive supports that CILs might draw upon to improve outcomes, ranging from self-determination and self-advocacy skills to education and employment outcomes. Table 4 provides more information on each of these studies.

3.3.1. Intensive, multi-stage programs

Three Youth Transition Demonstration (YTD) programs found during the search provided comprehensive supports combined with waivers from certain Supplemental Security Income (SSI) and Social Security Disability Insurance (SSDI) rules. Targeted to transition-age youth aged 14 to 25 receiving or at risk of receiving SSI payments or SSDI payments, the three YTD programs tested comprehensive transition programs at various sites throughout the country, including California, West Virginia, and Florida (Camacho & Hemmeter, 2013; Cobb et al., 2018; Fraker et al., 2014). Evidence from the three YTD programs suggests that similar programs may improve employment outcomes. In addition to the SSI and SSDI waivers, West Virginia’s YTD project provided assessment services, planning, work experiences, job development, job placement support, benefits planning and counseling, and job retention services for up to 18 months (Social Security Administration, n.d.; Cobb et al., 2018). West Virginia, which used a randomized controlled trial (RCT) design to rigorously measure impacts, saw positive impacts for a period on employment (Cobb et al., 2018). The California YTD project included teaching IL skills, job training and placement, prevocational training, on-the-job supports, assessment services, financial assistance, health services, and counseling services. About 60 percent of California YTD project participants had earnings 5 years after enrollment, but the proportion of participants receiving SSI or SSDI benefits did not decrease during that period (Camacho & Hemmeter, 2013). The Florida YTD project included case management, person-centered planning, customized employment services, benefits counseling, education support services, financial literacy training, and access to financial accounts called individual development accounts (IDAs) (Fraker et al., 2014).1 Drawing on findings from some of the RCT-evaluated YTD sites, the Clearinghouse for Labor Evaluation and Research (CLEAR) concluded that intensive, comprehensive transition programs for youth can improve earnings outcomes, but not substantively (CLEAR, 2015b).

Two other large RCTs implemented interventions similar to the YTD programs that led to positive employment and education outcomes. The two interventions—the Promoting the Readiness of Minors in Supplemental Security Income (PROMISE) demonstration project in six states; and the Partnership in Employment (PIE) project in eight states—provided intensive services like case management, benefits counseling, employment services and placement, and youth and family engagement. PROMISE and

1 For more detailed descriptions of the YTD projects and their outcomes, see the YTD reports on the Social Security Administration website: https://www.ssa.gov/disabilityresearch/youth.htm
Table 4
Articles describing transition programs for youth with disabilities

<table>
<thead>
<tr>
<th>Article</th>
<th>Study summary</th>
<th>Type of evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alwell &amp; Cobb (2009)</td>
<td>Disability-focused review of 50 studies focused on improving functional life skills for youth with IDD</td>
<td>QED, pre/post, qualitative, single-participant</td>
</tr>
<tr>
<td>Barnard-Brak et al. (2013)</td>
<td>Analyzed attitudes toward requesting learning accommodations of a pilot program that included one-on-one mentoring</td>
<td>Pre/post</td>
</tr>
<tr>
<td>Brady (2015)</td>
<td>Dissertation that examined how Alabama’s state vocational rehabilitation agency delivered services to transition-age youth with significant disabilities</td>
<td>Survey, interviews, case reviews</td>
</tr>
<tr>
<td>Burgin et al. (2017)</td>
<td>Interviewed nine instructors about their experiences having students with IDD audit their college course</td>
<td>Interviews</td>
</tr>
<tr>
<td>Camacho &amp; Hemmeter (2013)</td>
<td>Described IL intervention components and outcomes for the YTD program in California. Program services, including job training and placement, prevocational training, on-the-job supports, assessment services, financial assistance, health services, and counseling services</td>
<td>Descriptive analysis, interviews</td>
</tr>
<tr>
<td>Cavenaugh &amp; Giesen (2019)</td>
<td>Disability-focused review of interventions affecting the employability, IL skills, and social skills of youth with visual impairments</td>
<td>QED, descriptive analysis, qualitative</td>
</tr>
<tr>
<td>CLEAR (2015a)</td>
<td>Non-disability or mixed population review of programs focused on improving the education and labor outcomes of youth</td>
<td>RCT</td>
</tr>
<tr>
<td>CLEAR (2015b)</td>
<td>Disability-focused systematic review by CLEAR</td>
<td>RCT</td>
</tr>
<tr>
<td>CLEAR (n.d.-a)</td>
<td>Non-disability or mixed population review of career academies</td>
<td>RCT</td>
</tr>
<tr>
<td>CLEAR (n.d.-b)</td>
<td>Non-disability or mixed population review of the Job Corps National Guard Youth ChalleNGe Program</td>
<td>RCT</td>
</tr>
<tr>
<td>Cobb &amp; Alwell (2009)</td>
<td>Disability-focused review of 31 studies examined transition planning and coordination</td>
<td>QED, pre/post analysis, qualitative</td>
</tr>
<tr>
<td>Cobb et al. (2013)</td>
<td>Disability-focused review of 43 studies examined improving the early adult outcomes of youth with disabilities</td>
<td>QED, single-case design</td>
</tr>
<tr>
<td>Cobb et al. (2018)</td>
<td>Described IL intervention components and outcomes for the YTD program in West Virginia</td>
<td>RCT</td>
</tr>
<tr>
<td>Fraker et al. (2014)</td>
<td>Described intervention components and outcomes for the YTD program in Florida</td>
<td>RCT</td>
</tr>
<tr>
<td>Gilson et al. (2017)</td>
<td>Disability-focused review of 56 studies describing 21 instructional methods for employment skills for youth with IDD</td>
<td>RCT, single-case design</td>
</tr>
<tr>
<td>Green et al. (2011)</td>
<td>Provided assistive technology to a single program participant</td>
<td>Other: Single case design</td>
</tr>
<tr>
<td>Hill et al. (2010)</td>
<td>Surveyed independent living coordinators about service delivery for youth with disabilities exiting foster care</td>
<td>Survey</td>
</tr>
<tr>
<td>Karpur et al. (2014)</td>
<td>Analyzed the New York Model Transition Program, which provided career development activities, work engagement, goal development, and services from partner agencies</td>
<td>QED</td>
</tr>
<tr>
<td>Kirkendall et al. (2009)</td>
<td>Interviewed six participants and their parents about living in a dorm for ten weeks</td>
<td>Interviews</td>
</tr>
<tr>
<td>Landmark et al. (2010)</td>
<td>Disability-focused review that ranked transition practices by the number of articles that mentioned the practice</td>
<td>Qualitative, descriptive analysis</td>
</tr>
<tr>
<td>Marcotte et al. (2020)</td>
<td>Disability-focused review of 20 studies describing 7 interventions that promote independence at home for adolescents and adults with ASD</td>
<td>RCT; QED, qualitative, mixed-methods</td>
</tr>
<tr>
<td>Mazzotti &amp; Plotner (2016)</td>
<td>Analyzed Project Career, an intervention designed to empower youth with traumatic brain injury (n = 117) to work or pursue postsecondary education, with help from customized assistive technology, rehabilitation counseling, and mentoring opportunities</td>
<td>Survey</td>
</tr>
<tr>
<td>Minton et al. (2017)</td>
<td>Surveyed postsecondary transition providers</td>
<td>Pre/post analysis</td>
</tr>
<tr>
<td>Nochajski &amp; Schweitzer (2014)</td>
<td>Analyzed the School to Work Transition Program, which provided school-based learning, community involvement opportunities, work-based learning, and independent community employment in a multi-step process</td>
<td>Pre/post analysis</td>
</tr>
<tr>
<td>Palmer et al. (2012)</td>
<td>Analyzed self-determination among participants in the Beyond High School program, a multistage model designed to help students formulate goals, refine those goals with assistance, and pursue them</td>
<td>Pre/post analysis</td>
</tr>
<tr>
<td>Powers et al. (2012)</td>
<td>Analyzed self-determination and transition outcomes in the Take Charge program, a coaching and mentoring program</td>
<td>Pre/post analysis</td>
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### Table 4 (Continued)

<table>
<thead>
<tr>
<th>Article</th>
<th>Study summary</th>
<th>Type of evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renbarger &amp; Long (2019)</td>
<td>Non-disability or mixed population review of programs that help low-income youth achieve success in postsecondary education</td>
<td>RCT</td>
</tr>
<tr>
<td>Roberts (2013)</td>
<td>Dissertation describing the outcomes of youth up to six years after participating in the Texas Statewide Youth Leadership Forum (TSYLF), a five-day training focused on improving self-advocacy skills and followed by regular check-in meetings for a year.</td>
<td>QED</td>
</tr>
<tr>
<td>Ross et al. (2013)</td>
<td>Examined the employment and IL outcomes of 125 graduates of the Taft College Transition to IL program, a comprehensive two-year program providing college and community housing, college courses, vocational training, and individual supports</td>
<td>QED, Descriptive analysis</td>
</tr>
<tr>
<td>Stryron et al. (2006)</td>
<td>Analyzed the Youth Adult Services (YAS) program, which was still under development but provided clinical, residential, case management, and other supports</td>
<td>Interviews, survey, chart review, descriptive analysis</td>
</tr>
<tr>
<td>Treskon 2016</td>
<td>Non-disability or mixed population review of interventions that help youth who are not working or enrolled in school reconnect to work and skill development</td>
<td>RCT, QED, implementation studies</td>
</tr>
<tr>
<td>Tucker et al., 2017</td>
<td>Evaluated eight Partnerships in Employment demonstration projects to compile lessons learned</td>
<td>Document review</td>
</tr>
<tr>
<td>WWC (2016a)</td>
<td>Non-disability or mixed population review of summer bridge and counseling programs</td>
<td>RCT, QED</td>
</tr>
<tr>
<td>WWC (2016b)</td>
<td>Non-disability or mixed population review of freshman seminars or first year experience courses</td>
<td>RCT, QED</td>
</tr>
<tr>
<td>WWC (2017)</td>
<td>Non-disability or mixed population review of seven studies describing dual enrollment programs</td>
<td>RCT, QED</td>
</tr>
<tr>
<td>WWC (2018)</td>
<td>Non-disability or mixed population review of summer bridge and counseling programs</td>
<td>RCT, QED</td>
</tr>
<tr>
<td>WWC (2019a)</td>
<td>Non-disability or mixed population review of the Facilitating Long-term Improvements in Graduation and Higher Education for Tomorrow (FLIGHT) program</td>
<td>RCT, QED</td>
</tr>
<tr>
<td>WWC (2019b)</td>
<td>Non-disability or mixed population review of the Accelerated Study in Associate Programs (ASAP) program</td>
<td>RCT</td>
</tr>
<tr>
<td>WWC (2019c)</td>
<td>Non-disability or mixed population review of the InsideTrack program</td>
<td>RCT, QED</td>
</tr>
<tr>
<td>White et al. (2017)</td>
<td>Described an evidence-based transition program for youth, Stepped Transition in Education Program for Students (STEPs) with ASD</td>
<td>Program description</td>
</tr>
<tr>
<td>Wood et al. (2015)</td>
<td>Book chapter reviewing non-disability or mixed population literature relevant to Black males enrolled in community colleges</td>
<td>Descriptive analysis, qualitative</td>
</tr>
</tbody>
</table>

Notes: ASD = autism spectrum disorder; CIL = Centers for Independent Living; CLEAR = Clearinghouse for Labor Evaluation and Research; IDD = intellectual or developmental disability; IL = independent living; LGBTQ = lesbian, gay, bisexual, transgender, queer; QED = quasi-experimental design; RCT = randomized controlled trial; WWC = What Works Clearinghouse; YTD = Youth Transition Demonstration.

PIE attributed improvements in employment and post-secondary educational outcomes to implementation factors, including interagency collaboration and coordination of services, professional staff development, engaged leaders, person-centered service delivery, effective family and youth engagement, and relationships with businesses that could hire youth (Nye-Lengerman et al., 2019; Tucker et al., 2017).

#### 3.3.2. Programs promoting self-determination or self-advocacy skills

Self-determination and self-advocacy skills are meant to help students make choices, solve problems, and develop and work towards goals independently, but programs that teach these skills have mixed results. One peer-reviewed study included a pre/post analysis of self-determination among participants in the Beyond High School (BHS) program—a multistage model designed to help students formulate, refine, and pursue goals. The study reported increased self-determination as captured by the Arc Self-Determination Scale—a 72-item, self-reported self-determination measure—among BHS participants after they completed the program (Palmer et al., 2012). Another study, a dissertation, described the outcomes of youth up to six years after participating in the Texas Statewide Youth Leadership Forum (TSYLF). The intervention is a five-day training focused on improving self-advocacy skills followed up by regular check-in meetings for a year. Comparing TSYLF follow-up results to national averages, the study saw improvements in various early adult
outcomes, such as postsecondary school attendance and IL, but no significant changes in self-advocacy (Roberts, 2013).

Similarly, two studies focused on coaching and mentoring interventions had mixed results. After a one-on-one mentoring pilot program intended to encourage students with disabilities to apply to post-secondary education, the authors found that students with disabilities had significantly improved attitudes toward requesting accommodations but was not associated with increases in college applications (Barnard-Brak et al., 2013). Meanwhile, TAKE CHARGE, which is targeted to adolescents in foster care and special education, resulted in moderate to large differences in self-determination, quality of life, and utilization of community transition services, compared to youth who were enrolled in the foster care independent living program. Youth in the TAKE CHARGE intervention group also exhibited higher rates of high school completion, employment, and completion of independent living activities than the comparison group (Powers et al., 2012).

3.3.3. College-based programs

College-based programs were frequently used to promote IL among youth with intellectual or developmental disabilities (IDD). Interventions often immerse participants in a college-like environment with multiple components, such as undergraduate classes, dorm living, employment or internships, individualized supports, and transition skill instruction. Participants were usually close to completing or had completed their secondary schooling.

College-based programs for IDD youth offer a realistic college experience and—when intensive—might improve employment outcomes. In one qualitative study, semi-structured interviews with nine instructors about their experiences having students with IDD audit their college course suggested that the program should be better advertised and provide more training to instructors (Burgin, et al., 2017). In another qualitative study, researchers interviewed six participants (and their parents) about living in a dorm for ten weeks. Participant descriptions were consistent with transition and learning experiences of non-disabled youth transitioning to college life (Kirkendall et al., 2009). A descriptive study examined the employment and IL outcomes of 125 graduates of the Taft College Transition to IL program—a comprehensive two-year program providing college and community housing, college courses, vocational training, and individual supports. The study compared program participants to the general IDD population and found better employment and IL outcomes (Ross et al., 2013). Finally, a feasibility study showed that providing a vibrating watch to youth with IDD could improve time management outcomes (Green et al., 2011).

3.3.4. Dual enrollment programs

Evidence from seven literature reviews focused on youth with and without disabilities suggest dual enrollment programs—which allow youth to take college courses while still enrolled in high school—improved college completion and other outcomes, but not academic performance (WWC, 2017). Summer bridge and counseling programs, which provide services the summer before postsecondary matriculation, improved various college academic outcomes (WWC, 2016a; WWC, 2018). Freshman seminars, which are also called first-year experience courses, improve credit attainment, degree attainment, and college completion (WWC, 2016b). Some comprehensive support and coaching programs also showed promise. The Facilitating Long-term Improvements in Graduation and Higher Education for Tomorrow (FLIGHT) program provided in-school workshops, mentors, advocates, and individualized assistance to high school and middle school students living in poverty who meet basic behavioral and academic standards. Services could be provided for up to eight years into the freshman year of college. The FLIGHT program increased college enrollment (WWC, 2019a). InsideTrack provided individualized coaching before, during, and after college in pursuit of postsecondary education goals. InsideTrack improved college persistence (WWC, 2019c). All the studies described in these education-related literature reviews were either RCTs or QEDs that met WWC standards or met WWC standards with reservations.

3.3.5. Work- and community-based learning experiences

CILs might also consider integrating work- and community-based learning experiences, though the evidence for these types of programs is mixed. One review found that several of the studies on work- and community-based learning experiences did not provide evidence of effectiveness (Landmark et al., 2010). However, a 2009 journal article that reviewed 31 studies focused on transition planning and coordination found that student-focused planning and student-development interventions improved transition outcomes (Cobb & Alwell, 2009). Four years
later, Cobb and other authors released a much larger review that found that community-based work-experience programs might improve postsecondary education outcomes, and functional life-skills development programs may positively affect independent living outcomes (Cobb et al., 2013). A review of 56 studies describing 21 instructional methods of employment skills for youth with IDD found that most of the instructional methods had positive effects in various settings—including many community-based, non-school settings (Gilson et al., 2017). Finally, a CLEAR review found an RCT showing that career academies participants had higher earnings in early adulthood. The career academies reviewed were small learning communities focused on exploring a specific career through classroom- and work-based learning experiences (CLEAR, n.d.-a).

3.3.6. Programs led by partner organizations

Many of the programs identified through this search were led by other organizations that CILs might consider partnering with. Government-funded entities oversaw a majority of the transition programs we identified (Brady, 2015; Camacho & Hemmeter, 2013; Hill et al., 2010; Karpur et al., 2014; Roberts, 2013; Styron et al., 2006). For example, state vocational rehabilitation agencies in Alabama and California each administered a program (Brady, 2015; Camacho & Hemmeter, 2013). Two pilot programs were conducted by academics with federal funding (Palmer et al., 2012; Nochajski & Schweitzer, 2014). Several interventions were based at or administered by colleges (Burgstahler & Chang, 2007; Kirkendall et al., 2009; Minton et al., 2017; Ross et al., 2013). One program was overseen by a community-based organization (Cobb et al., 2018).

3.3.7. Programs tailored to youth with specific types of disabilities

Given the broad range of disability types, CILs may consider creating programs targeted to youth with specific types of disabilities. Two studies focused on transition programs for youth with serious emotional disturbances. One study conducted a pre/post participant analysis of the School to Work Transition Program (STWTP), which provided school-based learning, community involvement opportunities, work-based learning, and independent community employment in a multi-step process to youth with emotional/behavioral disorders. STWTP participants had improved employment outcomes (Nochajski & Schweitzer, 2014). The other study collected descriptive and qualitative data about the Youth Adult Services (YAS) program, which was still under development but provided a comprehensive set of clinical, residential, case management, and other supports. Measure and interview data from 60 randomly selected participants suggested that YAS’ strengths and community-based services were highly correlated with positive outcomes (Styron et al., 2006).

The other three studies included various program components and target populations. One article described an evidence-based transition program for youth with autism spectrum disorder (ASD) called Stepped Transition in Education Program for Students (STEPS) with ASD. The STEPS model provides assessment, psychoeducation, and planning services during secondary schooling as well as 12 to 16 weeks of individual counseling, community-based outings, and online content into postsecondary schooling (White et al., 2017). A pre/post analysis of Project Career—which empowers youth with traumatic brain injury to work or pursue postsecondary education with help from customized assistive technology, rehabilitation counseling, and mentoring opportunities—found improved quality of life and academic performance among 117 participants (Minton et al., 2017). An analysis of the New York Model Transition Program using a matched comparison group from the National Longitudinal Transition Study 2 found that program participants who received relatively more transition services while in secondary school had better young adult outcomes. The program’s transition services included career development activities, in-school work experiences, paid work, creating work-related goals, creating post-secondary education goals, services from partner agencies, and work engagement (Karpur et al., 2014).

3.3.8. Interventions narrowly focused on functional living skills

Findings from three literature reviews show that narrowly focused interventions designed to improve specific skills for youth with specific disabilities can be effective. An ASD-focused review examined 20 studies describing 7 interventions that promote independence at home for adolescents and adults. It found that video self-modeling, video modeling, behavioral interventions, video prompting, transition planning program, training in the use of a cognitive aid, and a social skills group all improved outcomes related to independence at home. The review included causal studies, but most of the evidence was correlational and based on small sample
sizes (Marcotte et al., 2020). Another review examined 50 studies regarding improving functional life skills for youth with IDD. The interventions provided direct instruction for functional life skills, such as budgeting, other money skills, crossing streets, self-protecting, assorted leisure skills, housekeeping, cooking, laundry skills, sewing, and self-care. The studies were mostly single-participant or correlational designs but suggested overall that various interventions can impart life skills to these youth (Alwell & Cobb, 2009). A literature review focused on youth with visual impairments considered interventions affecting the employability, IL skills, and social skills. Most studies reviewed described an intervention. However, some studies did perform correlational analyses using small samples. Interventions with evidence of effectiveness included social skills training to enhance verbal skills in job interview situations, behavioral training approaches, and a drama workshop to improve social skills (Cavenaugh & Giesen, 2019).

3.3.9. Interventions for disconnected youth

Some interventions can help disconnected youth—that is, youth who are not working or enrolled in school, regardless of disability status—reconnect to work and skill development. One review of RCTs, QEDs, and implementation studies found that successful programs for disconnected youth often had common features, “including opportunities for paid work and the use of financial incentives; strong links among education, training, and the job market; the use of youth development approaches; comprehensive support services; and support after programs end” (Treskon, 2016, p. 1). These features mirror findings from the disability-related youth literature regarding the types of interventions that are most promising. Numerous other programs (with varied approaches) reviewed by CLEAR were successful at improving education and earnings. Some examples of these programs include Job Corps, National Guard Youth ChalleNGe Program, Year Up, and Youth Corps (CLEAR, 2015a; CLEAR, n.d.-b). Again, these programs had features (such as intensive service delivery) that mirror promising programs in the disability literature.

3.3.10. Interventions for low-income youth

Our search also uncovered programs that help low-income youth achieve postsecondary education success. According to one RCT, low-income youth in secondary school who are about to transition to postsecondary school and life are more likely to apply to postsecondary schools if they receive information about applications and financial aid. Evidence from studies about the effects of advanced high school coursework on improving postsecondary education outcomes is mixed (Renbarger & Long, 2019). A separate literature review discovered evidence that Accelerated Study in Associate Programs (ASAP)—a comprehensive postsecondary education support program—improved college attainment, enrollment, and persistence among low-income youth (WWC, 2019b).

3.3.11. Interventions for black men

A book chapter describing literature relevant to Black males enrolled in community colleges also had useful information. Various interventions and initiatives may improve community college outcomes for Black men, such as encouraging a welcoming climate, strong academic patterns, full time attendance, social integration, and self-efficacy. Although the authors provide citations, they do not describe the level of evidence on which their statements about efficacy are based (Wood et al., 2015).

3.3.12. Descriptions of effective transition practices

We also found three studies that broadly described transition practices instead of focusing on specific interventions, which may provide CILs with an understanding of the types of services various IL-related transition programs deploy. A survey of transition providers found that few had strong exposure to or training in evidence-based transition practices (Mazzotti & Plotner, 2016). A dissertation used qualitative and quantitative data to examine how Alabama’s state vocational rehabilitation agency delivered services to transition age youth with significant disabilities. The findings suggest that learning IL skills is a key need for many youth and that early referral to vocational rehabilitation helps counselors diagnose and address this need (Brady, 2015). Finally, a survey of IL coordinators found that youth with disabilities exiting foster care received a wide range of services (with case management being the most prevalent) from various county and state services (Hill et al., 2010).

4. Discussion

In our literature review, we searched for information that could assist CILs as they help youth with
disabilities transitioning to adult life achieve their IL-related goals. We conducted the search in two parts: one arm focused narrowly on CILs, IL, and minority youth with disabilities, and the other arm reviewed existing literature reviews on transition, regardless of focus on disability or minority status.

Although we did not find strong evidence describing CIL-delivered transition practices for youth with disabilities, survey evidence from CILs and their customers provide some useful insights. CILs view youth transition as an important service, but they could better engage customers to identify what transition services customers receive and involve customers in service plan development. In addition, CIL customers might benefit if CILs create more formal partnerships with LEAs and other local organizations to support youth with disabilities who are transitioning to adult life.

The literature discussing IL-related transition practices for minority youth with disabilities was also limited, but evidence focused on youth with disabilities from underrepresented groups highlights some promising practices for CILs. For example, CIL staff might consider adopting organizational and interpersonal changes that promote a safe and understanding environment for customers from underrepresented groups and build upon youths’ existing strengths. CIL staff should also consider how they can better serve youth with disabilities from underrepresented groups by strengthening connections with their parents. Specifically, CIL should consider empowering both youth and their families during the transition to adult life by conducting outreach, expanding access to services, and building capacity and trust.

Turning to transition programs for youth with disabilities, four types of practices clearly emerged as potentially helpful to CILs. First, two YTD programs that delivered intensive supports and services to SSI recipients and SSDI beneficiaries—two groups that have historically had poor employment outcomes—reported positive employment impacts or trends. CILs wishing to replicate the YTD programs and their impacts will be unable to offer the program waivers YTD offered. Nevertheless, CILs might improve youth outcomes by providing more intensive and comprehensive YTD-style services, such as job training and placement, prevocational training, on-the-job supports, assessment services, financial assistance, health services, and counseling services. CILs can also improve service delivery by engaging in best practices that large transition-focused RCTs attributed their success to, including collaborating across agencies, building community partnerships, investing in staff development, promoting person-centered service delivery, and engaging with family and youth. Second, through offering a realistic college experience, college-based programs might be another path to better employment and IL outcomes for youth with IDD. However, CILs will need strong partnerships with local colleges and universities to implement or participate in such programs because they are college-focused. Third, the evidence revealed programs promoting self-determination or self-advocacy might improve education and IL-related outcomes for youth with disabilities, though, surprisingly, such programs might not always increase self-determination or self-advocacy. Fourth, evidence from five studies suggests youth with disabilities transitioning to adult life might benefit from work- or community-based learning experiences. The scope of these work- or community-based learning activities varied somewhat across the five studies. However, the evidence describing the efficacy of these practices was among the strongest we found during the literature review.

The promising transition practices we located are not necessary mutually exclusive. For example, most of the supports and services described above can be delivered in an intensive manner. As CILs examine their current transition practices and consider adopting new practices, they might internalize that initiatives providing detailed training over an extended period of time are more likely to be successful than other initiatives.

Some other transition practices for youth with disabilities emerged as potentially beneficial to CILs, although the evidence for these practices was limited. The practices included customized assistive technology, rehabilitation counseling, paid work, mentoring opportunities, assessment, and planning services. What these diverse practices loosely have in common is their intensity and customization to individual student circumstances. However, in this study, the evidence supporting these practices was almost always confined to a single study centered around improving specific skills for youth with certain types of disabilities.

When we focus on practices not targeted at youth with disabilities that CIL might consider adopting, four practices stand out. First, seven studies suggest programs that allow youth to take college courses while still enrolled in high school improved college completion and other outcomes (other than academic performance). Second, youth who are not working or
enrolled in school—a status many youth with disabilities experience—might benefit from practices that reconnect them to work and skill development. Third, programs that help youth from families with low-income can encourage applications to college and improve college attainment, enrollment, and persistence. Finally, a literature review focused on Black males enrolled in community colleges suggested practices—such as encouraging a welcoming climate, strong academic patterns, full time attendance, social integration, and self-efficacy—might be beneficial to that population.

5. Literature limitations and implications for policy development

The evidence we found to answer our research questions was unsatisfying in several ways. First, most articles did not describe CIL-based interventions and practices. We found just a few studies that reported survey data provided by CILs who voluntarily replied. We had hoped to find several articles that spoke directly to CIL-based transition interventions and practices. Second, we did not find many articles about transition practices for minority youth entering adult life in existing literature reviews. The two minority-focused studies we did find—a summary of transition practices for culturally and linguistically diverse students and a synthesis of evidence about supporting Black males enrolled in community colleges—were not focused on broad IL goals, and only one concerned youth with disabilities. Although we found three articles about transition practices for youth with disabilities from underrepresented groups, none of these underrepresented groups were racial minorities, so the findings may not be applicable to minority youth. Third, few articles focused on IL goals other than employment or education. This gap in the literature is important because CILs help customers with a variety of IL goals, not just employment or education. Fourth, the articles we found often did not use rigorous methods—such as RCT or QED designs—to measure program impacts. Most articles relied on correlational evidence—such as pre/post designs and single case studies—or qualitative evidence to suggest a program or practice was promising. Hence, we generally cannot assert the programs we discovered during the literature review are effective at improving IL outcomes relative to the status quo.

The limitations of the evidence suggest the need for researchers and practitioners to work alongside CILs and develop interventions that help youth with disabilities—especially minority youth with disabilities—transitioning to adult life achieve their IL goals. Although CILs have served this population for decades, no rigorous evidence establishes a causal link between existing CIL practices and better IL outcomes for youth with disabilities. There is also very limited information about evidence-based CIL practices that help minority youth transition successfully to adult life. Our findings provide some program ideas for CILs to explore, but developing new practices specifically for CILs and generating evidence to measure their efficacy will require coordinated effort from various stakeholders.

Despite their shortcoming, programs and practices identified during this literature review will help researchers, practitioners, and CILs as they work together to develop and test new interventions. Practices targeting youth with certain types of disabilities or that can be customized to address the specific disability-related needs may hold promise for improving early adult outcomes. The types of outcomes a CIL-based intervention is designed to influence is another consideration. Although employment and postsecondary education are key IL-related outcomes for youth transitioning to adult life, the range of IL goals that youth with disabilities may have extends well beyond those two outcomes. Youth entering adult life might wish to work or go to college, but they might also want to live alone, access transportation independently, or conduct other activities without assistance. CILs might therefore benefit from interventions that can assist with a wide range of IL goals or develop separate interventions for other IL goals. Finally, CILs and stakeholders could develop interventions and programs that address the various challenges that minority youth with disabilities experience while transitioning to adult life. Though we found limited evidence about practices CILs can use to support minority youth with disabilities transitioning to adult life, we did find literature highlighting the unique needs of members of underrepresented groups. When developing interventions that help youth with disabilities transition to adult life, CILs and stakeholders will need to find ways to address the unique needs and challenges of minority youth with disabilities.

Our literature review has two limitations. First, we did not conduct a full systematic evidence review, so our assessments do not fully describe the studies’ quality of evidence or compare quality of study evidence to a strict external evidence standard, such as CLEAR or WWC evidence standards. Conducting
a systematic review would better assess the rigor of the studies and, thus, whether any are worthy of special interest for CILs or other community-based organizations. However, given the limited evidence we found, a systematic review might be an unwise resource investment. Second, the broadness of the second search arm required us to make decisions that kept the literature review manageable. For instance, our search focused on drawing evidence from existing literature reviews because we did not have sufficient resources to screen thousands of individual articles on youth transition. Future research on CIL and youth transition might more thoroughly explore the literature on a specific topic or practice.

**Conflict of interest**

None to report.

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**Supplementary data**

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