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Systematic Review

Self-Determination Interventions for Students with Intellectual and Developmental Disabilities Transitioning to Postsecondary Education: A Scoping Review

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Abstract

Students with intellectual and developmental disabilities (IDDs) need a myriad of independent living skills to seamlessly transition to postsecondary education. One of these skills is self-determination. Self-determination is deemed as a combination of knowledge and skills that enables a person to become autonomous. So, the purpose of this scoping review was to explore the interventions that promote self-determination in students with IDDs as they transition to postsecondary education in USA. Arksey's and O'Malley's framework guided this scoping review paper. An electronic search was conducted using IU OneSearch. The search was restricted to peer-reviewed studies, books, and eBooks published in English language between 2010 to 2022. Studies were screened at the title and abstract levels, and at full-text level by the author. In total, two studies met the inclusion criteria and were included in this review. Findings showed that curriculum-based and community-based interventions had remarkable potentials in promoting self-determination in students with IDDs who were transitioning to postsecondary education. Implications for research include developing and implementing more curriculum-based and community-based interventions; measuring treatment integrity through checklists; describing implementation procedures to allow for replication studies to be conducted; and utilizing a mixed-methods research design in intervention studies.

Keywords: students, intellectual and developmental disabilities, scoping review, self-determination, postsecondary education, transition

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1 INTRODUCTION

Students with disabilities need a myriad of independent living skills to smoothly transition to postsecondary education[1]. In fact, independent living skills are deemed as "those skills which contribute to the successful independent functioning of a person in adulthood" p.345. Examples of independent living skills include, but are not limited to, stress management, perseverance, self-control, self-advocacy, and resilience[1,2]. According to recent research, independent living skills better enable students with

disabilities who are transitioning to postsecondary education to manage their schedules and request accommodations as needed[3]; to incorporate organizational strategies[2]; and to cope with study-related challenges, adjust to academic environments, and navigate any socio-environmental, logistical and attitudinal barriers to success[4]. So, students with disabilities need to attain an array of independent living skills to easily transition to postsecondary education.

The Individuals with Disabilities Education Act mandates school districts to create transition goals related to independent living skills in the individualized education programs of students with disabilities when they reach the age of 16[5]. According to Indiana Institute on Disability and Community[6], these goals must be based on age-appropriate transition assessments, like the Adolescent Autonomy Checklist, Self- Advocacy Checklist, Student Dream Sheet, Disability Awareness Checklist, and AIR Self-Determination Scale. To achieve these goals, students with disabilities are provided with a number of transition services from agencies, like local educational agencies and vocational rehabilitation agencies. As a matter of fact, research shows that students with disabilities, who attain goals related to independent living skills, are adequately prepared to enter postsecondary education[1]. Hence, preparing students with disabilities for postsecondary education requires developing goals relevant to independent living skills using age-appropriate transition assessments.

An essential independent living skill that needs to be acquired by students with disabilities as they transition to postsecondary education is self-determination[7]. In effect, self-determination is a combination of skills and knowledge that empowers an individual to become autonomous and self-dependent[8]. It is highly associated with three fundamental components: knowledge of self, knowledge of rights, and communication. First, knowledge of self refers to gaining knowledge of one's strengths, goals, learning styles, dreams, interests, responsibilities, disability characteristics, accommodation needs, and aspirations. Second, knowledge of rights refers to knowing one's legal rights as a student with a disability who is receiving special education and related services under federal law. Third, communication refers to one's ability and aptitude to negotiate, persuade, and compromise; to express one's feelings, needs, and desires; and to listen actively to others. Thus, to become self-determined, students with disabilities need to demonstrate deep knowledge of self and rights, and to communicate effectively.

Students with intellectual and developmental disabilities (IDDs) are one of the particularly vulnerable populations that needs to attain self-determination before transitioning to postsecondary education[7]. IDDs refer to intellectual, physical, and emotional impairments which impinge the trajectory of an individual[9]. According to Ochoa and Welch[10], students with IDDs have serious problems with judgment, reasoning, and learning from experience; therefore, they can be easily taken advantage of by their college peers. Also, they are exceedingly credulous, gullible, and trusting[11,12]; thus, they can be coerced into engaging in inappropriate behaviors[11,13]. By attaining and exercising self-determination prior to transitioning to postsecondary education, students with IDDs maintain control over their lives and shield themselves from being victimized. Therefore, the purpose of this scoping review was to explore the interventions that promote self-determination in students with IDDs as they transition to postsecondary education.

2 METHODS

A scoping review was selected as the most proper research method to achieve the purpose of this paper. Generally, scoping reviews are comprehensive research tools, with which researchers determine the depth and breadth of a topic under investigation and identify gaps in the knowledge base[14]. This review is guided by Arksey's and O'Malley's[15] framework. It comprises several stages: creating a research question, selecting studies, identifying inclusion and exclusion criteria, reporting search results, and charting extracted data.

2.1 Creating A Research Question

The research question that guided this review was: What are the interventions that promote self-determination in students with IDDs as they transition to postsecondary education?

2.2 Selecting Studies

An electronic literature search was initiated using Indiana University OneSearch. The following keywords were utilized to search for literature: "self-determination programs" or "self-determination training" or "self-determination interventions" or "self-determination skills" or "self-determination curricula" or "self-determination aptitudes" and "students with IDDs" or "students with IDDs" and "transition to public universities" or "transition to private universities" or "transition to colleges" or "transition to postsecondary education settings." The search was restricted to peer-reviewed studies, books, and eBooks which were published in English language between 2010 to 2022.

2.3 Identifying Inclusion and Exclusion Criteria

Studies were included in this scoping review if they were original research; were conducted in any geographical location; involved high school students, whose ages ranged between 14 to 22 years; included high school students, who were clinically diagnosed with mild, moderate, or severe IDDs; and implemented an intervention (e.g., program, curriculum, workshop, or training) to hone self-determination in high school students who were

transitioning to postsecondary education.

Studies were excluded from this scoping review if they were secondary research (i.e., types of research involving existing data); included students who were in elementary or middle schools; involved high school students, who were not clinically diagnosed with IDDs; and implemented an intervention (e.g., program, curriculum, workshop, or training) to hone self-determination in high school students who were transitioning to employment.

2.4 Reporting Search Results

The electronic search had yielded 661 studies. Having removed all duplicates, 435 studies were screened at the title and abstract levels by the author. Out of the 435 studies, 15 studies were retrieved for full-text review, of which 13 were excluded because they involved elementary school students, or implemented an intervention, program or training to polish self-determination in high school students who were transitioning to employment. Hence, a total of two studies were included in this review (see Figure 1).

2.5 Charting Extracted Data

A table was created to extract data from the selected studies. It encompasses the following information: purpose of the studies, research design, intervention, and measure (see Table 1). The author and the coder independently extracted the data from the selected studies using a spreadsheet. Then, the author and the coder compared the extracted data together and settled any discrepancies through discussions until consensus was reached.

3 FINDINGS

This section provides a thorough account of the interventions that were implemented in the two studies.

3.1 Chinese Idiom Self-Determination Curriculum (CISDC)

In Chao's study[16], the CISDC was incorporated to promote self-determination in 85 high school students with intellectual disabilities. The ages of these students ranged from 16 to 18 years, and their intelligence quotient scores ranged from 58 to 71. These students were randomly assigned to an intervention (43 students) and a control group (42 students). The students in the intervention group received the CISDC, which was taught by special education teachers over a 12-week period and comprised six anthropomorphic-rhetoric stories. These stories (i.e., All Stratagems have been Exhausted, Frog in a Well, Trust to Chance and Windfall, Kick against the Bricks, Third Party from the tussle, and Fox Borrows a Tiger's Terror) promoted a wide range of skills associated with self-determination, such as self-advocacy, self-regulation, self-knowledge, autonomy, self-adjustment, self-awareness, self-protection, and goal attainment. In addition, these stories were delivered using several teaching practices, like role-plays, cooperative learning, and discovery learning, to encourage students to think and practice independently, and motivate them to learn. Last, parents and special education teachers used the Self-Determination Assessment Scale (SDAS) to evaluate students' self-determination skills before and after the intervention. After analyzing the data using the One-way Analysis of Covariance, Chao reported that students' scores on the SDAS after the intervention were higher than their scores before the intervention.

3.2 Think College Transition (TCT)

In Schillaci et al.'s study[17], the TCT was developed and implemented to reinforce self-determination in 67 students with IDDs who were at their second year of secondary education. The ages of these students ranged from 18 to 21 years. These transition-aged youths were divided into an intervention (36 students) and a control (31 students) group. The intervention group participated in the TCT program, which was founded on four key pillars (i.e., Plan, Support, Work, and Learn). In the Plan pillar, planning sessions were held, in which college personnel worked intensively with transition-aged youths to explore college courses and identify several work opportunities based on their preferences and goals. In the Support pillar, transition-aged youths were introduced to career and disability services on campus and were assigned to a mentor who acquainted them with college life. Also, they developed self-determination by requesting the accommodations needed to succeed in college and asking for help. In the Work and Learn pillars, transition-aged youths registered for college courses and selected job opportunities that aligned with their future goals. While doing so, they were encouraged to be autonomous, make right decisions, navigate challenges, monitor their progress, and attain their goals. Based on these pillars, the eight components of the TCT emerged: community-based transition services, self-determination, family engagement, courses of study and enrollment, student support for college success, dual enrollment, community-based integrated paid employment, and evaluation of college-based transition services (see Table 2). Finally, transition-aged youths were asked to respond to the Self-Determination Inventory (SDI) before and after the intervention. After running regression analyses, Schillaci et al. asserted that transition-aged youths' scores on the SDI after the intervention were higher than their scores before the intervention.

4 DISCUSSION

The purpose of this review was to explore the interventions that promote self-determination in students with IDDs as they transition to postsecondary education. Two studies met the inclusion criteria and were included in this review. These studies implemented research-based interventions to hone self-determination in students with IDDs. The following paragraphs compare and contrast the two interventions in relation to their purpose, research

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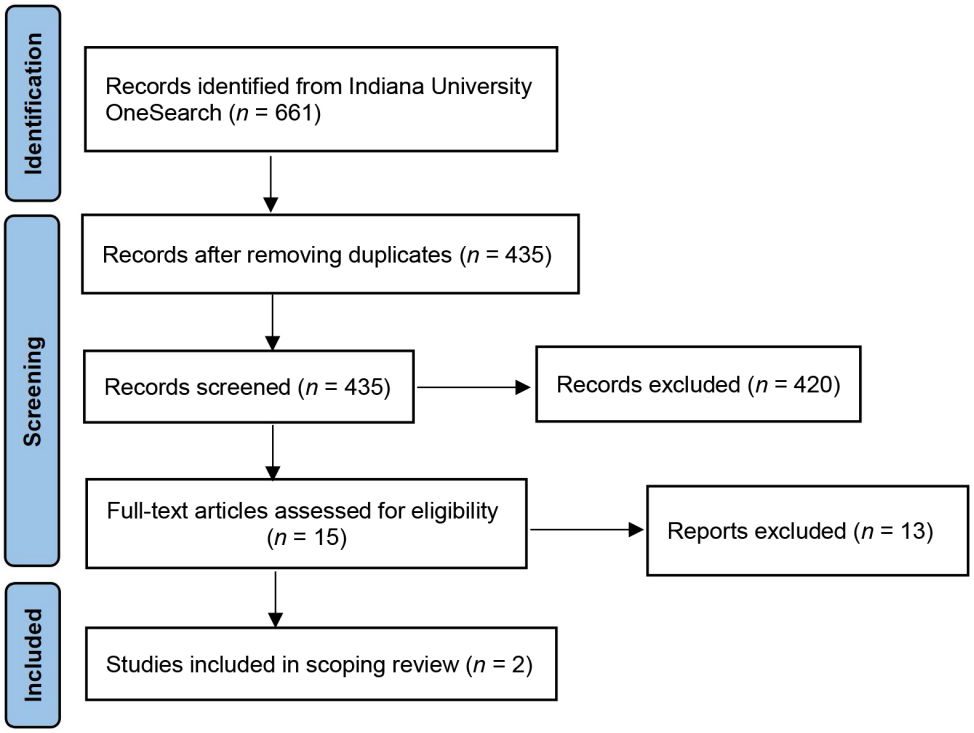

Figure 1. Flowchart of Search Results.

Table 1. Descriptive Content of the Selected Studies

Sources	Purpose of the Studies	Research Design	Intervention	Measure
[16]	To enhance self-determination in Taiwan region adolescents with intellectual disabilities.	Experimental	Chinese Idiom Self-Determination Curriculum (CISDC)	Self-Determination Assessment Scale (SDAS)
[17]	To enhance self-determination in American transition-aged students with IDDs.	Quasi-Experimental	Think College Transition (TCT)	Self-Determination Inventory (SDI)

Table 2. TCT Program Components

TCT Components	Explanation
Community-Based Transition Services	High school and college staff collaborate to provide transition-aged youth with IDDs with an array of community-based transition services and supports.
Self-Determination	Transition-aged youths are provided with training to hone their self-determination (e.g., ask for help, or request accommodations).
Family Engagement	College personnel provide transition-aged youths' parents with information about university life (e.g., mobility, travel, safety precautions, and risks).
Courses of Study and Enrollment	Transition-aged youths register for credit and non-credit courses, which are fully integrated. Their courses of study support the acquisition of skills that are related to their desired goals.
Student Support for College Success	Transition-aged youths have access to a wide variety of supports and accommodations from the university and other personnel, such as educational coaches, peers, mentors, and tutors.
Dual Enrollment	High school counselors are updated about transition-aged youths' program-of-study offerings to aid them in their college decision-making.
Community-Based Integrated Paid Employment	Transition-aged youths are strongly encouraged to participate in community-based integrated paid employment opportunities that are related to their future career goals.
Evaluation of College-Based Transition Services	High school and college personnel evaluate college-based transition services and outcomes on a regular basis.

design, measure, and nature.

First, both interventions had identical purposes. In Chao's study[16], the CISDC aimed at polishing self-determination in Taiwan region students with intellectual disabilities. This intervention entailed six anthropomorphic-rhetoric stories,

which were delivered by special education teachers. These teachers incorporated a plethora of instructional strategies to motivate the students to learn. Similarly, in Schillaci et al.'s study[17], the TCT program aimed at promoting self-determination in American transition-aged youths with IDDs. This intervention comprised eight key components: community-based transition services, self-determination, family engagement, courses of study and enrollment, student support for college success, dual enrollment, community-based integrated paid employment, and evaluation of college-based transition services.

Second, both interventions were quantitative in nature. Chao's study[16] incorporated an experimental research design in which 85 students were randomly assigned to an intervention or a control group. The intervention group included 43 students (23 boys and 20 girls), and the control group involved 42 students (22 boys and 20 girls). Along the same vein, Schillaci et al.'s study[17] utilized a quasi-experimental research design in which 67 students were assigned to an intervention or a control group. The intervention group consisted of 36 students (22 boys and 13 girls), and the control group included 31 students (22 boys and 9 girls).

Third, different measures were incorporated to assess self-determination. Chao's study[16] administered the SDAS, a 72-item self-report measure which comprised four domains: autonomy, self-regulation, psychological empowerment, and self-realization. The autonomy domain assessed community life participation, interpersonal relationships, and self-care. The self-regulation domain measured cogent thinking and goal attainment. The psychological empowerment domain evaluated perception of control and positive outcome expectation. The self-realization domain assessed self-concept and self-knowledge. In contrast, Schillaci et al.'s study[17] employed the SDI, a 51-item self-report measure which encompassed three domains: action-control belief, volitional action, and agentic action. The action-control belief domain assessed control-expectancy, self-realization, and psychological empowerment. The volitional action domain measured autonomy and initiation. The agentic action domain evaluated pathway thinking and self-direction.

Last, the nature of the two interventions was different. The CISDC, which was incorporated in Chao's study[16], was a curriculum-based intervention. It entailed six anthropomorphic-rhetoric stories, which were taught by special education teachers using a myriad of instructional techniques. Also, this intervention involved a small number of stakeholders, like parents and special education teachers. However, the TCT, which was employed in Schillaci et al.'s study[17], was a community-based intervention. It occurred in a postsecondary education environment to offer transition-aged youths with a genuine experience of college life. Further, this intervention involved a large number of stakeholders, such as high school and college staff, parents, mentors, tutors, and coaches.

4.1 Implications for Research

Findings of this review underscored that curriculum-based (i.e., CISDC) and community-based (i.e., TCT) interventions had valuable potentials in promoting self-determination in students with IDDs who were transitioning to postsecondary education. Albeit their importance, these types of research-based interventions are remarkably scarce. Future research is warranted to develop and implement more curriculum-based and community-based interventions to hone self-determination in students with IDDs as they transition to postsecondary education.

A key component of research-based interventions is treatment integrity[18,19]. Treatment integrity, also known as implementation integrity, is deemed as the degree to which an intervention is delivered as intended[19]. It is critical to the successful transfer of research-based interventions into practice[18]. None of the two studies[16,17] implemented treatment integrity measures. This may lead to incorrect conclusions about intervention effectiveness. Future research is warranted to use treatment integrity measures, such as checklists, to ensure participants' stringent adherence to intervention protocols.

Another essential component of research-based interventions is implementation procedures[20]. Implementation procedures are thorough descriptions of how an intervention has been carried out. Without a precise description of implementation procedures, other researchers may not be able to launch replication studies. Replication studies are those that employ identical research methods and follow similar implementation procedures to highlight whether the results of previous studies were due to chance or not[21]. None of the two studies[16,17] offered an exhaustive description of implementation procedures. Future research is needed to thoroughly describe how interventions are being delivered.

Last, both studies[16,17] employed a quantitative research design, in which questionnaires (i.e., SDAS and SDI) were administered to evaluate the effectiveness of the two interventions (i.e., CISDC and TCT) in honing self-determination in students with IDDs. Future research is warranted to utilize a mixed-methods research design, in which quantitative and qualitative data are collected, analyzed, and compared[14,21]. This type of research design enables researchers to draw causal inferences between a given intervention and its outcome. Examples of popular data collection tools in a mixed-methods research design include, but are not limited to, textual analyses,

observations, surveys, questionnaires, and interviews.

4.2 Limitations

This scoping review has some limitations. First, only peer-reviewed studies were included in this review, thereby excluding the existing grey literature (i.e., theses, dissertations, etc.) on the topic under investigation. Second, only studies published in English were included in this review, thus eliminating the studies that are written in other languages and of relevance to the topic under investigation. Last, the electronic search was restricted to studies published between 2010 to 2022, thereby limiting the number of studies included in this review.

5 CONCLUSION

The purpose of this review was to explore the interventions that promote self-determination in students with IDDs as they transition to postsecondary education. Out of the 661 studies yielded by IU OneSearch, only two studies met the inclusion criteria. The interventions that were employed in these studies were the CISDC and TCT. In fact, the CISDC was a curriculum-based intervention, which entailed six anthropomorphic-rhetoric stories. Delivered by special education teachers using a plethora of engaging instructional practices, these stories promoted a myriad of skills associated with self-determination, like self-advocacy, self-regulation, self-knowledge, goal attainment, self-adjustment, autonomy, self-awareness, and self-protection. Contrarily, the TCT was a community-based intervention, which was administered in a postsecondary education environment to provide transition-aged youths with an authentic experience of college life. The TCT rested on four pillars: Plan, Support, Work, and Study. Based on these pillars, the eight components of the TCT emerged: community-based transition services, self-determination, family engagement, courses of study and enrollment, student support for college success, dual enrollment, community-based integrated paid employment, and evaluation of college-based transition services.

Implications for research entail developing and implementing more curriculum-based and community-based interventions to hone self-determination in students with IDDs as they transition to postsecondary education; measuring treatment integrity (i.e., implementation integrity) through checklists; describing implementation procedures thoroughly to allow for replication studies to be conducted; and incorporating a mixed-methods research design to draw causal inferences between interventions and their outcomes. Last, some limitations of this scoping review were detected, like the exclusion of the grey literature that focused on the topic under investigation and the inclusion of studies that were only published in English language between 2010 to 2022.

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Conflicts of Interest

The author declared no conflict of interest.

Author Contribution

Ahmed GHA conducted the research and drafted the manuscript.

Abbreviation List

CISDC, Chinese Idiom Self-Determination Curriculum
IDDs, Intellectual and developmental disabilities
SDAS, Self-Determination Assessment Scale
SDI, Self-Determination Inventory
TCT, Think College Transition

References

[1] Gothberg JE, Peterson LY, Peak M et al. Successful transition of students with disabilities to 21st-century college and careers: Using triangulation and gap analysis to address nonacademic skills. *Teach Except Child*, 2015; 47: 344-351.[DOI]

[2] Carroll C. Barriers to Success in Postsecondary Studies for Students With Disabilities: An Analysis of Current Policies and Practices. 2020.

[3] Elias R, Muskett AE, White SW. Educator perspectives on the postsecondary transition difficulties of students with autism. *Autism*, 2019; 23: 260-264.[DOI]

[4] Lipka O, Sarid M, Aharoni Zorach I et al. Adjustment to higher education: A comparison of students with and without disabilities. *Front Psychol*, 2020; 11: 923.[DOI]

[5] Individuals with Disabilities Education Act. POLICY GUIDANCE: A Transition Guide to Postsecondary Education and Employment for Students and Youth with Disabilities (August 2020). Available at:[Web]

[6] Indiana Secondary Transition Resource Center: Indiana University Bloomington. Transition Assessment Matrix: Finding Age-Appropriate Transition Assessments. Available at:[Web]

[7] Quigney TA. Transition to Post-Secondary Life for Students with Disabilities: Promoting Student Success. *J School Couns*, 2017; 15: n2.

[8] West LL. Integrating Transition Planning into the IEP Process. Council for Exceptional Children: Arlington, USA, 2009.

[9] Intellectual and Developmental Disabilities (IDDs). Available at:[Web]

[10] Ochoa TA, Welch AM. Engaging Exceptional Students: A Primer for Collaboration and Positive Classroom Management. Cognella Academic Publishing: Solana Beach, USA, 2022.

[11] Greenspan S, Loughlin G, Black RS. Credulity and gullibility in people with developmental disorders: A framework for future research. *Int Rev Res Ment Ret*, 2001; 24: 101-135.[DOI]

[12] Viriyangkura Y. Understanding the support needs of people with intellectual and related developmental disabilities through cluster analysis and factor analysis of statewide data. Illinois State University: Normal, USA, 2014.

[13] Werth JM. Parent Perceptions of Social Vulnerability of Students With Disabilities: Experience of and Coping with

Victimization. New York, USA: State University of New York at Buffalo, 2017.

[14] Machi LA, Mcevoy BT. The literature review: six steps to success. SAGE Publications: Southend Oaks, USA, 2016.

[15] Arksey H, O'Malley L. Scoping studies: Towards a Methodological Framework. *Int J Soc Res Method*, 2005; 8: 19-32.[DOI]

[16] Chao PC. Using Chinese idioms to teach adolescents with intellectual disabilities self-determination skills. *Soc Behav Personal*, 2020; 48: 1-11.[DOI]

[17] Schillaci RS, Parker CE, Grigal M et al. College-based transition services' impact on self-determination for youth with intellectual and developmental disabilities. *Intellect Dev Disab*, 2021; 59: 269-282.[DOI]

[18] An M, Dusing SC, Harbourne RT et al. What really works in intervention? Using fidelity measures to support optimal outcomes. *Phys Ther*, 2020; 100: 757-765.[DOI]

[19] Breitenstein SM, Gross D, Garvey CA et al. Implementation fidelity in community-based interventions. *Res Nurs Health*, 2010; 33: 164-173.[DOI]

[20] Walker EM, Mwaria M, Coppola N et al. Improving the replication success of evidence-based interventions: Why a preimplementation phase matters. *J Adolescent Health*, 2014; 54: S24-S28.[DOI]

[21] Creswell JW, Creswell JD. Research Design. SAGE Publications: Southend Oaks, USA, 2022.