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Impact of the Quality of Life Supports Model on the inclusion of students with disabilities in higher education: A scoping review

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ABSTRACT

Background: The Quality of Life Supports Model (QOLSM) is a well-suited framework for enhancing the inclusion of students with disabilities in higher education. No research aimed at assessing its impact has been identified.

Aims: This review aims to map the scientific literature to assess the current impact of QOLSM on higher education.

Methods and procedures: A Scoping Review of educational practices, policies, and cultures aimed at enhancing the quality of life for students with disabilities was conducted. Databases from EBSCOHost, ProQuest, and Scielo were employed to identify studies written in English or Spanish from 1978 to 2023. Four independent reviewers screened results for inclusion.

Outcomes and results: Out of 5361 records, 21 met the inclusion criteria. Students with developmental disabilities are the primary recipients of Quality-of-life support strategies. The reported educational practices were poorly aligned with the disability rights framework, the social-ecological model of disability, and the multidimensional Quality-of-Life construct. Specialized supports and mainstream settings were more common than generic supports and segregated settings.

Conclusions and implications: This review highlights the currently limited impact of the QOLSM in fostering the inclusion of students with disabilities in higher education. Conducting a systematic review or meta-analysis is not recommended at this stage.

What this paper adds

This review article addresses a current gap in the scientific literature regarding the impact of the Quality of Life Supports Model on the inclusion of students with disabilities in higher education. Through an analysis of existing research, several key findings emerge in the field of quality-of-life studies. While there is growing interest in improving the QoL for higher education students with disabilities, our analysis highlights persistent methodological issues in QoL intervention research, such as inadequate sample descriptions and low-quality evidence designs. The primary focus of QoL interventions in higher education institutions is on students with intellectual and developmental disabilities. Moreover, our findings emphasize the importance of adopting a

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rights-based framework and a social-ecological model of disability when designing and implementing QoL interventions for higher education students with disabilities, thereby fostering not only their access but also their retention and success.

Data availability

We have shared the PRISMA-ScR-Fillable-Checklist (Supplemental Data A) and a detailed overview of the reported educational practices and associated QoL outcomes (Supplemental Data B).

1. Introduction

In recent years, the enrollment of students with disabilities in higher education has increased significantly (Sandoval, Morgado, & Doménech, 2021; Smith, Woodhead, & Chin-Newman, 2019; Taneja-Johansson, 2021; Report). Although these students remain underrepresented (Seale et al., 2015), various legislative developments in inclusive education, such as the Warnock Report (1978), the UN Convention on the Rights of Persons with Disabilities (CRPD) (United Nations, 2006), and the Sustainable Development Agenda (United Nations, 2015), have contributed to enhancing their access to higher education. These international policies, along with other key legislative milestones (UNESCO, 1994, 2015, 2022), have prompted numerous countries to revise national legislation and implement targeted measures to improve access to higher education for students with disabilities (Norwich, 2019). Despite increased access, significant barriers persist within the teaching-learning process, such as bureaucratic obstacles, architectural inaccessibility, negative attitudes, and limited opportunities for private disclosure (García-González et al., 2021; Sánchez-Díaz & Morgado, 2022; Smith et al., 2019). These barriers contribute to higher dropout rates among students with disabilities compared to their non-disabled peers (Carballo et al., 2021; Getzel & Thoma, 2008). Consequently, promoting access alone is insufficient for guaranteeing the full realization of the right to education; fostering retention and academic success is equally critical (Morña & Biagiotti, 2022). This necessitates a paradigm shift from deficit-centered psycho-pedagogical approaches that perpetuate segregation (Verdugo et al., 2020) towards educational approaches rooted in the social-ecological model of disability (Bronfenbrenner & Morris, 1998; Shogren et al., 2021; Walker et al., 2011), which advocate for inclusive educational environments that recognize students with disabilities as part of a complex ecological system that shapes their development.

The Quality of Life Supports Model (QOLSM) is an integrated conceptual and applied framework initially developed in the field of intellectual and developmental disabilities (IDD) for guiding policy, systems change, supports provision, and person-centered outcome assessment (Gómez et al., 2021a, 2021b; Morán et al., 2023; Verdugo et al., 2021). Combining the Quality-of-Life Model (Schalock & Verdugo, 2002, 2007) and the Supports Paradigm (Thompson et al., 2009), QOLSM emphasizes human and legal rights of people with disabilities (Harpur, 2012; Morán et al., 2023; United Nations, 2006), individualized support within inclusive community settings (Schalock & Luckasson, 2021; Schalock et al., 2021a), and the evaluation of valued personal outcomes (Shogren et al., 2021). Based on the Quality-of-Life Model, the QOLSM adopts a multidimensional approach to quality of life (QoL), conceptualizing it as a desired state of personal well-being that incorporates both objective and subjective elements, influenced by personal and environmental factors (Schalock, Verdugo, & Braddock, 2002; Schalock & Verdugo, 2007). It considers eight domains of a person's life (Schalock, Verdugo, & Braddock, 2002): material well-being (MW), emotional well-being (EW), physical well-being (PW), personal development (PD), interpersonal relationships (IR), social inclusion (SI), self-determination (SD) and rights (RI). Drawing from the Supports Paradigm, the QOLSM conceptualizes support needs as a mismatch between environmental demands and personal competence, aligning with social-ecological models of disability, which view disability as a dynamic interaction between individuals and their environment (Bronfenbrenner & Morris, 1998; Forstner, 2022; Shogren et al., 2021; Walker et al., 2011). Assessing support needs and evaluating personal QoL outcomes are essential processes for planning and providing personalized support (Thompson et al., 2009; Schalock & Luckasson, 2021). The QOLSM differentiates between generic and specialized supports (Verdugo et al., 2021). Generic supports encompass resources broadly available to the general population, including natural supports, technology, prosthetics, lifelong learning opportunities, reasonable accommodations, dignity and respect, and personal strengths or assets. Specialized supports refer to professional interventions, strategies, and therapies (Schalock et al., 2021b). Based on a social-ecological model of development (Bronfenbrenner & Morris, 1998), the QOLSM recognizes that support systems can impact different levels of a person's environment, from individual characteristics (biosystem) to immediate settings (microsystem), interactions between these settings (mesosystem), broader environmental influences (exosystem), and overarching cultural and societal elements (macrosystem) (Gómez et al., 2021a; Shogren et al., 2021).

Research has demonstrated a strong alignment between QoL domains, support system elements, and CRPD articles (Amor et al., 2020; Gómez et al., 2020, 2022; Lombardi et al., 2019; Morán et al., 2023; Verdugo et al., 2012). This alignment positions the QOLSM as an appropriate framework for transitioning from traditional deficit-focused psycho-pedagogical approaches to a model that promotes inclusive educational practices, policies, and cultures (Schalock et al., 2021a). The QOLSM aims to support inclusive education for students with disabilities in mainstream settings by identifying their needs and providing appropriate supports (Gómez et al., 2021a, 2021b; Verdugo et al., 2021). In the field of higher education, recent studies indicate that students with disabilities who receive appropriate support are more likely to achieve academic success (Newman et al., 2019). Implementing the QOLSM within the educational system involves adopting support strategies that not only enhance academic performance but also improve overall QoL outcomes (Gómez et al., 2021b), thereby increasing student retention and success.

1.1. Study purpose

Given the demonstrated impact of the QOLSM on organizational transformation and systems change (Morán et al., 2023; Verdugo et al., 2024), this model holds substantial potential to improve the inclusion of students with disabilities in higher education (Gómez et al., 2021a; Verdugo et al., 2021). As its application expands (Verdugo et al., 2021), it becomes crucial to evaluate its impact (Gómez et al., 2021b). However, no research has been identified that assesses the model's current impact on higher education. This study aims to fill this gap by conducting a scoping review to map the existing scientific literature on QOLSM's impact on higher education. This includes identifying and analyzing educational practices, policies, and cultures in higher education institutions that aim to enhance the QoL of students with disabilities.

This comprehensive review aims to answer the following research questions:

- 1.1. What types of research are reported in the scientific literature regarding educational practices aimed at improving the QoL of higher education students with disabilities?
- 1.2. To what extent are these practices aligned with the QOLSM and its key characteristics, including those related to the Quality-of-Life Model (e.g., a disability rights framework, QoL multidimensionality, and a social-ecological model of disability) and the Supports Paradigm (e.g., generic supports, mainstream settings, and social-ecological model)?
- 1.3. What gaps exist in the literature?

2. Method

2.1. Approach to review

A scoping review method (Arksey & O'Malley, 2005) was selected for two main reasons. Firstly, this methodology is well-suited for investigating previously unexplored topics (Arksey & O'Malley, 2005), which seems to be the situation in this field. It serves as a preliminary step for a subsequent systematic review if its results ensure the availability of sufficient relevant evidence. Secondly, the scoping review method aligns with the comprehensive nature of this review, which aims to examine the extent, range, and nature of the research within this field. The review process followed the five-stage framework proposed by Arksey and O'Malley (2005), which included: (1) formulating the research question, (2) identifying relevant studies, (3) selecting studies for inclusion, (4) mapping the findings, and (5) collating and summarizing the results. This study adheres to the Preferred Reporting Items for Systematic Reviews and Meta-Analysis Extension for Scoping Reviews (PRISMA-ScR) (Tricco et al., 2018) to enhance transparency in reporting (see PRISMA-ScR Checklist in Supplementary Material A).

2.2. Search strategy and eligibility criteria

Following the establishment of the review objective and research questions, we applied the remaining four stages of Arksey and O'Malley's (2005) framework. Initially, preliminary searches were conducted in the SCOPUS, Web of Science, and Google Scholar citation indexes to identify relevant search terms and determine the most appropriate databases in this field, thereby deciding the search strategy. Subsequently, the search strategy was conducted on January 26th, 2024, using EBSCO (covering ERIC, PsycInfo, CINAHL, PsycODOC, and PsycArticles), ProQuest (including the Education Database and Latin American & Iberian Database), and Scielo. These databases were selected for their relevance to inclusive education, QoL, and disability, as identified in the preliminary searches. Two parallel searches were performed in English and Spanish (see Table 1), aligned with the authors' language proficiencies, and restricted to publications from 1978 (the year of the Warnock Report) to 2023. Additional studies were identified through hand searching and reference lists screening.

Identified studies underwent a multi-step screening process. All records were initially uploaded into Zotero (v. 6.0.30) for duplicate removal. Four researchers then tested the eligibility criteria (see Table 2) to ensure consistency. Firstly, a 5 % random subsample of articles (n=215) was used to apply the criteria, and interrater reliability was assessed using Krippendorff's Alpha ($\alpha=0.62$; 95 % CI: 0.58–0.65; bootstrap=10,000). Discrepancies were discussed, and necessary modifications were made to ensure a unified criteria use. Subsequently, 25 % of the articles (n=1076) were randomly assigned in pairs to apply the revised criteria, yielding a Cohen's kappa of

Table 1
Search terms.

English: AB ("student" OR "pupil") AND AB ("special needs" OR "support needs" OR "disab*" OR "impair*" OR "regular" OR "mainstream" OR "inclusive" OR "special education" OR "segregated" OR "integrated" OR "integration") AND AB ("strateg*" OR "method" OR "technique" OR "intervention" OR "provision" OR "promot*" OR "program" OR "service" OR "implement*" OR "support" OR "practice" OR "politic" OR "culture" OR "resource" OR "product" OR "material" OR "assessment" OR "inclusion" OR "inclusive" OR "including" OR "integration" OR "assistance" OR "assistive" OR "aid") AND AB ("quality of life" OR "qol" OR "well being" OR "well-being" OR "wellbeing").

Spanish: AB ("estudiant*" OR "alumn*") AND AB ("necesidades especiales" OR "necesidades educativas especiales" OR "necesidades educativas" OR "necesidades específicas de apoyo educativo" OR "necesidades específicas" OR "necesidades de apoyo" OR "discap*" OR "regular" OR "general" OR "ordinari*" OR "inclusiv*" OR "educación especial" OR "centro específico" OR "segregad*" OR "integrad*" OR "especial") AND AB ("estrategia" OR "método" OR "metodología" OR "técnica" OR "interven*" OR "programa" OR "servicio" OR "implement*" OR "apoyo" OR "promov*" OR "provisión" OR "proporcionar" OR "práctica" OR "política" OR "cultura" OR "recurso" OR "producto" OR "material" OR "evaluación" OR "valoración" OR "inclu*" OR "integra*" OR "ayuda" OR "asisten*") AND AB ("calidad de vida" OR "cdv" OR "bienestar").

Table 2
Inclusion and exclusion criteria.

Criteria	
Inclusion criteria	<i>Publication Type:</i> Primary studies, either scientific articles or reports.
	<i>Type of action:</i> Studies reporting educational actions (practices, policies, or cultures).
	<i>Context:</i> Studies conducted in higher education.
	<i>Population:</i> Studies that address disability, including intellectual, developmental, physical, psychosocial, organic, and sensory disability, as defined by the 2006 UN Convention.
Exclusion criteria	<i>Availability:</i> Studies not available in full text.
	<i>Language:</i> Studies not published in English or Spanish.
	<i>Context:</i> Studies not conducted within formal education settings.
	<i>QoL results:</i> Studies that do not explicitly report on students' QoL outcomes. These outcomes are not required to specifically adhere to the Schalock, Verdugo, & Braddock, 2002 model.

0.64 ($p < .001$), confirming the effectiveness of the modifications. The remaining 70 % of articles ($n = 3014$) were also randomly assigned in pairs, resulting in a Cohen's kappa of 0.67 ($p < .001$). Disagreements were resolved through team discussions.

2.3. Data extraction and synthesis

To address the first research question, we extracted the following data from the selected studies: year of publication, country, study design, comparison procedure, participants, type of disability, and students' age and gender. For the second research question, we analyzed the alignment of the reported educational practices with the QOLSM and its key characteristics. Initially, the reported educational practices and QoL-related outcomes were evaluated against the Quality-of-Life Model's characteristics—disability rights framework, QoL multidimensionality, and a social-ecological model of disability—using the questions listed in Table 3. Subsequently, the practices were further analyzed in relation to the Supports Paradigm characteristics, which include generic supports, mainstream settings, and the involvement of social-ecological levels, by addressing the questions outlined in Table 4.

3. Results

Twenty-one studies met the established criteria. Fig. 1 displays the flow diagram of the screening process. Refer to Supplementary Material B for a detailed overview of the reported educational practices and associated QoL outcomes.

As shown in Table 5, twenty studies (95 %) were scientific articles, while one (5 %) was a report. Most studies ($n = 13$, 62 %) were conducted in the United States. The studies were published from 2002 onward, showing a progressive increase in frequency, with over half ($n = 12$) published in the last seven years. Regarding study design, eleven studies employed qualitative methods, seven used quantitative methods, and three utilized mixed methods. Half of the studies ($n = 11$) assessed the effectiveness of educational practice through comparative procedures: five used a group design, and six employed a repeated measures design.

The sample sizes of the included studies varied considerably, with a predominance of small sample sizes. In 95 % ($n = 20$) of the studies, data were directly obtained from students with disabilities. Peers were included in 19 % ($n = 4$) of the studies, university staff in 9 % ($n = 2$), and students' family members in 5 % ($n = 1$). Many studies lacked essential sociodemographic details, with 38 % ($n = 8$) not reporting participants' ages and 28 % ($n = 6$) not providing gender information. The most frequently reported disabilities were intellectual disability (38 %, $n = 8$), learning disabilities (33 %, $n = 7$), and attention deficit hyperactivity disorder (28 %, $n = 6$).

3.1. Analysis of reported educational practices according to the Quality-of-Life Model

Regarding the disability rights framework, as shown in Table 6, only 8 out of 21 articles (38 %) explicitly aligned their educational practices with a disability rights framework, such as the CRPD (United Nations, 2006), the Universal Declaration of Human Rights

Table 3
Analysis of reported practices according to the Quality-of-Life Model.

Analyzed element	Questions for Analysis
Disability rights framework	Does the educational practice align with the disability rights framework? ¹ Does the educational practice align with the inclusive education model?
Multidimensionality	Is the multidimensional nature of the QoL concept explicitly recognized?
Social-ecologic model	Is disability conceptualized within a social-ecological model? ² Does the reported practice affect the individual's competence or contextual factors?
Linkage to QoL domains	Which QoL domains, as defined by the Schalock, Verdugo, & Braddock, 2002 model, are associated with the outcomes achieved through the educational practice?

Note. ¹We examined whether the authors referenced the rights of individuals with disabilities to justify the implementation of educational practices, considering international frameworks such as the CRPD (United Nations, 2006), the Universal Declaration of Human Rights (United Nations, 1948), and relevant local regulations that establish the rights of individuals with disabilities. ²We assessed whether disability was conceptualized as the result of the interaction between environmental demands and individual competencies.

Table 4
Analysis of reported practices according to the Supports Paradigm.

Analyzed element	Questions for Analysis
Type of support	Is the educational practice considered a generic support or a specialized support?
Context	Does the educational practice take place in segregated or mainstream settings?
Social-ecological levels involved	At which level does the reported practice exert its impact—bio, micro, meso, exo, or macrosystem level? (Bronfenbrenner & Morris, 1998) ¹

Note. ¹We identified the most external level at which the reported support exerts its impact. For instance, if the practices described in an article affect both student characteristics and their classmates, they influence both the biosystem and microsystem levels. Therefore, we would categorize the article as reporting practices that impact the microsystem level.

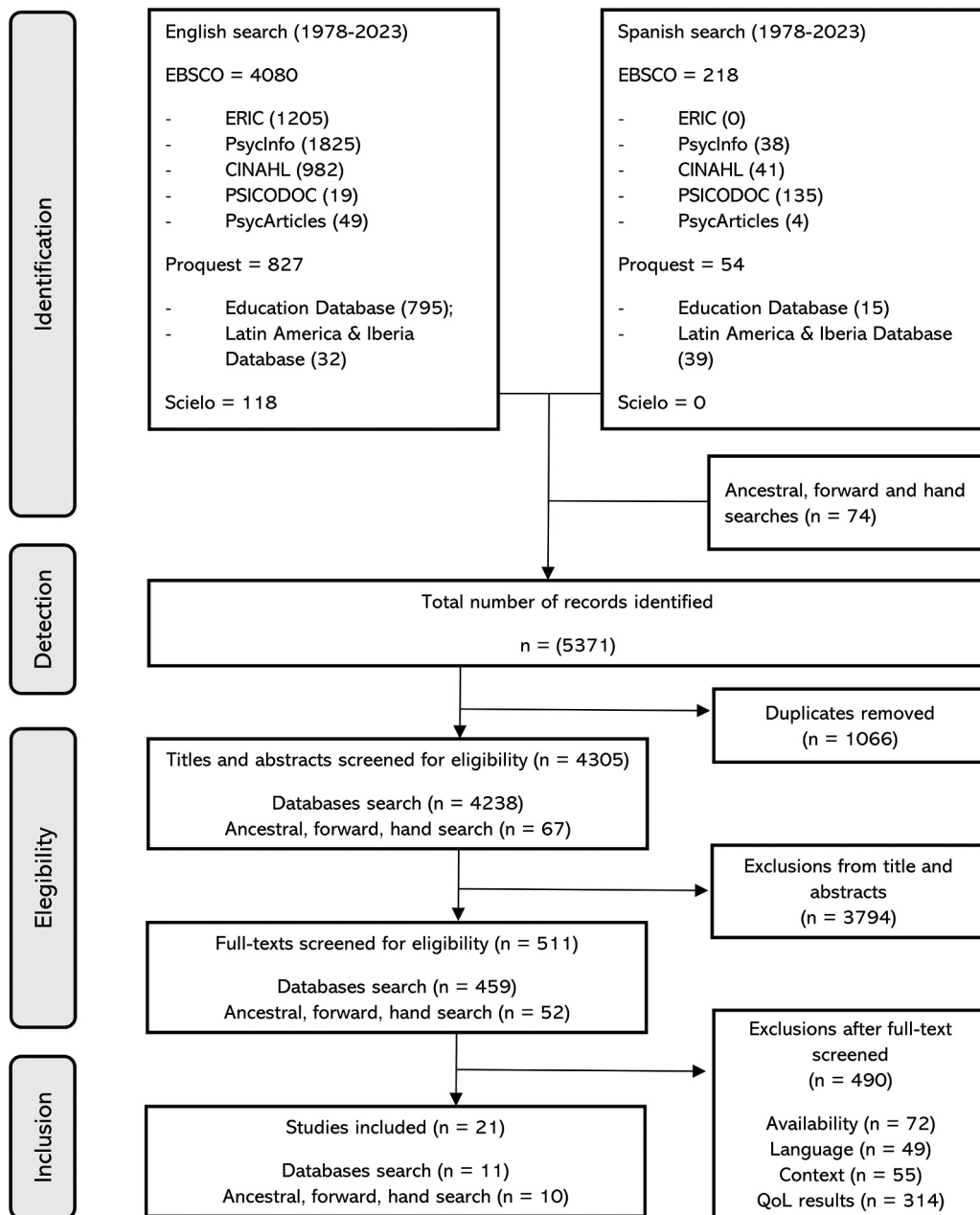


Fig. 1. PRISMA-SCR flow diagram. Adapted from Tricco et al. (2018).

Table 5
Summary of Studies Included.

(Study number) Author	Year	Country	Participants					Study design	Group design	Repeated measures	Students with disability		Type of students' disability
			N	SD	P	RS	ST				Age	Gender	
(1) Weinkauff (2002)	2002	Canada	7	NR	—	—	7	QUAL	NO	NO	NR	NR	6A00.Z
(2) Lartz et al. (2008)	2008	USA	9	9	—	—	—	QUAL	NO	NO	NR	NR	AB52
(3) Parker and Boutelle (2009)	2009	USA	54	54	—	—	—	QUAL	NO	NO	NR	NR	6A03.Z; 6A05.Z
(4) Parker et al. (2011)	2011	USA	7	7	—	—	—	QUAL	NO	NO	NR	6 M, 1 W	6A05.Z
(5) Heiman and Olenik-Shemesh (2012)	2012	Israel	931	361	570	—	—	QUAN	YES	NO	17–57	535 M, 429 W	6A03.Z
(6) Hendrickson et al. (2013)	2013	USA	45	20	25	—	—	QUAN	YES	NO	NR	NR	6A00.Z
(7) Richman et al. (2014)	2014	USA	24	24	—	—	—	MM	YES	NO	NR	12 M, 12 W	6A03.Z; 6A05.Z
(8) McKay et al. (2015)	2015	USA	28	28	—	—	—	QUAL	NO	YES	18–24	14 M, 14 W	6A00.Z
(9) Piers and Duquette (2016)	2016	Canada	13	5	—	—	8	QUAL	NO	NO	20–32	2 M, 3 W	6A03.Z; 6A05.Z
(10) Ashbaugh et al. (2017)	2017	USA	3	3	—	—	—	QUAN	NO	YES	19–24	1 M, 2 W	6A02.Z
(11) Spassiani et al. (2017)	2017	Ireland	12	12	—	—	—	QUAL	NO	NO	19–39	3 M, 9 W	6A00.Z
(12) Dysterheft et al. (2018)	2018	USA	12	12	—	—	—	MM	YES	NO	20/ 21.8	5 M, 7 W	8D2Z, 8C70.Z, 8B61.Z, LB9A.8, LD26.4Z, XH5FY2, FA20.Z
(13) Kreider et al. (2018)	2018	USA	143	52	57	—	34	MM	NO	YES	21.2	26 M, 24 W	6A03.Z
(14) Rillotta et al. (2020)	2020	Australia	10	4	6	—	—	QUAL	NO	YES	19–41	2 M, 2 W	6A00.Z
(15) Ryan et al. (2019)	2019	USA	25	25	—	—	—	QUAN	NO	NO	NR	NR	6A00.Z
(16) Subrayen and Suknunan (2019)	2019	South Africa	5	5	—	—	—	QUAL	NO	NO	NR	NR	9D9Z; MB44.Z; NC59.Z; MB53
(17) O'Shea and Salzer (2020)	2020	USA	70	70	—	—	—	QUAN	NO	YES	24	12 M, 54 W, 5 T	6A7Z; 6B0Z
(18) Rodríguez-Herrero et al. (2020)	2020	Spain	14	14	—	—	—	QUAL	YES	NO	22–44	6 M, 8 W	6A00.Z
(19) Lee et al. (2021)	2021	USA	30	30	—	—	—	QUAL	NO	YES	18–25	19 M, 11 W	6A00.Z
(20) McNicholl et al. (2023)	2023	Ireland	111	111	—	—	—	QUAN	NO	NO	28.59	32 M, 77 W	6A03.Z; 6A05.Z; 6A02.Z
(21) O'Shea et al. (2023)	2023	USA	286	286	—	—	—	QUAN	NO	NO	22.5	53 M, 221 W, 6 T	6E8Z; AB5Z; 9D9Z; MA80.Z; 6A03.Z; 6A05.Z; 6A02.Z; MB44.Z

Note. SD = Study participants with disability; P = Peers without disability; RS = Relatives of students; ST = University Staff; QUAN = Quantitative design; MM = mixed method design; QUAL = qualitative design; NR = No reported; M = Males; W = Women; T = Transgender; Type of students' disability = Identification codes of the International Classification of Diseases, Eleventh Revision —ICD-11— (WHO, 2019); 6A00.Z = Disorders of intellectual development, unspecified; AB52 = Deafness not otherwise specified; 6A03.Z = Developmental learning disorder, unspecified; 6A05.Z = Attention deficit hyperactivity disorder, presentation unspecified; 6A02.Z = Autism spectrum disorder, unspecified; 8D2Z = Cerebral palsy, unspecified; 8C70.Z = Muscular dystrophy, unspecified; 8B61.Z = Spinal muscular atrophy, unspecified; LB9A.8 = Femoral agenesis; LD26.4Z = Arthrogyrosis syndromes, unspecified; XH5FY2 = Fibrous dysplasia; FA20.Z = Rheumatoid arthritis, serology unspecified; 9D9Z = Vision impairment, unspecified; MB44.Z = Abnormalities of gait and mobility, unspecified; NC59.Z = Traumatic amputation of wrist or hand, unspecified; MB53 = Hemiplegia; 6A7Z = Depressive disorders, unspecified; 6B0Z = Anxiety or fear-related disorders, unspecified; 6E8Z = Mental, behavioural or neurodevelopmental disorders, unspecified; AB5Z = Disorders with hearing impairment, unspecified; MA80.Z = Speech disturbances, unspecified.

Table 6
Analysis of educational practices and their alignment with QOLSM.

Study Number	Analysis of educational practices								
	According to the Quality-of-Life Model				According to the Supports Paradigm				
	Rights perspective		Multidimensionality	Social-ecological model	Educational practices impact on	QoL domains	Type of support	Context	Ecological Levels
Rights	IE								
(1)	YES	YES	NO	YES	Student	EW, SD, PD	Specialized	Segregated	BIO
(2)	YES	YES	NO	YES	Context	SI, SD	Generic	Mainstream	MICRO
(3)	NO	NO	NO	NO	Student	EW, SD, PD	Specialized	Segregated	BIO
(4)	NO	NO	NO	NO	Student	EW, PD	Specialized	Mainstream	BIO
(5)	NO	NO	NO	YES	Context	EW, PD, IR	Generic	Mainstream	MICRO
(6)	YES	YES	YES	YES	Both	EW, PD, SI, SD	Specialized	Mainstream	MICRO
(7)	NO	NO	NO	YES	Student	EW, PD, SD	Specialized	Mainstream	BIO
(8)	NO	NO	NO	NO	Student	PD, SI, SD	Specialized	Segregated	BIO
(9)	NO	NO	NO	YES	Both	EW, IR	Both	Mainstream	MESO
(10)	NO	YES	NO	YES	Both	EW, PD, SI, IR	Both	Mainstream	MICRO
(11)	YES	YES	NO	YES	Both	IR, SI, PD, PW	Specialized	Segregated	MICRO
(12)	NO	YES	YES	NO	Student	PW, EW, IR	Specialized	Mainstream	BIO
(13)	NO	YES	NO	YES	Both	EW, PD, SI	Specialized	Mainstream	MICRO
(14)	YES	YES	NO	YES	Both	SD, PD, SI, IR	Generic	Mainstream	MICRO
(15)	YES	YES	NO	YES	Context	SD, PW, MW, PD, SI	Generic	Mainstream	MICRO
(16)	YES	YES	NO	YES	Student	SI, RI, EW	Generic	Mainstream	BIO
(17)	NO	NO	NO	YES	Both	SI, PW, RI	Specialized	Mainstream	MICRO
(18)	YES	YES	YES	YES	Both	EW, PD, IR, SI, RI	Specialized	Mainstream	MICRO
(19)	NO	YES	YES	NO	Student	IR, SD, PD	Specialized	Segregated	BIO
(20)	NO	YES	YES	YES	Context	EW, PD	Generic	Mainstream	MICRO
(21)	NO	YES	NO	YES	Student	QoL	Specialized	Mainstream	BIO

Note. IE = Inclusive education model; BIO = Biosystem; MICRO = Microsystem; MESO = Mesosystem.

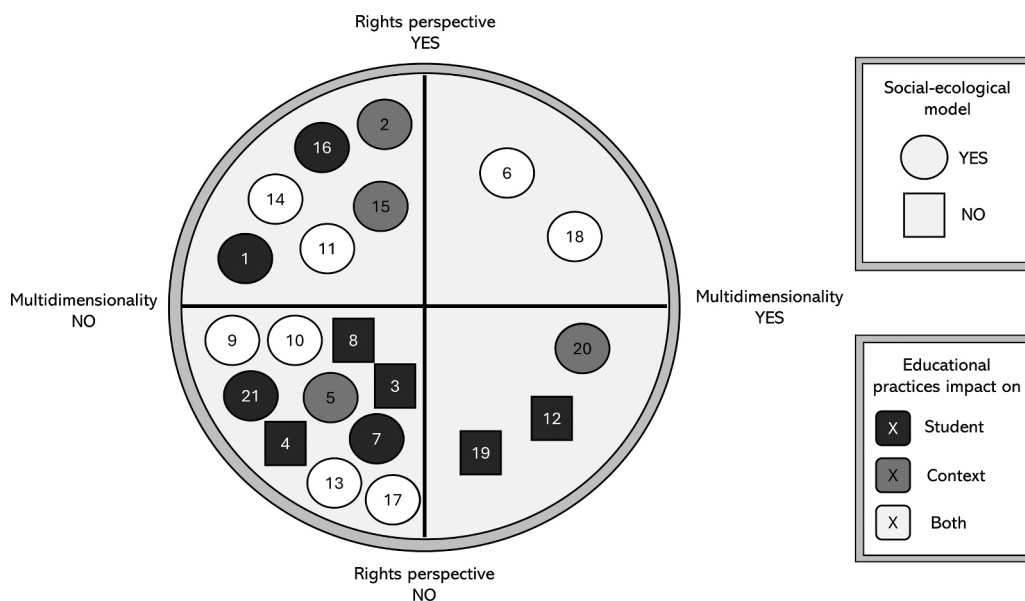


Fig. 2. Analysis of reported educational practices according to the Quality-of-Life Model. *Note.* The articles are categorized into four quadrants based on two variables represented along two axes. The vertical axis indicates alignment with the disability rights framework (YES, above; NO, below), while the horizontal axis represents the QoL multidimensionality (YES, right; NO, left). Each number within the figures corresponds to the assigned article numbers. The shape of the figures represents the presence (circle) or absence (square) of a social-ecological model of disability. The color of each figure indicates whether the educational practices impact only the student with a disability (black), only the student’s environment (grey), or both (white).

(United Nations, 1948), or relevant local regulations that protect the rights of individuals with disabilities. The inclusive education model was more frequently referenced, appearing in 14 out of 21 articles (67 %).

In terms of QoL multidimensionality, the majority of articles (76 %, n=16) did not explicitly acknowledge it, despite their educational practices impacting various QoL domains. Specifically, personal development was addressed in 67 % of the articles (n=14), emotional well-being in 62 % (n=13), social inclusion in 52 % (n=11), self-determination in 43 % (n=9), and interpersonal relationships in 34 % (n=7).

With respect to the social-ecological model of disability, 76 % (n=16) of the articles incorporated this perspective. However, 43 % (n=9) of the articles focused exclusively on the competencies of students with disabilities, 19 % (n=4) focused on the students' environment, and the remaining 38 % (n=8) addressed both competence and environment.

All studies lacking a social-ecological model also failed to align their practices with the disability rights framework and focused their educational practices solely on student competence (see Fig. 2). Additionally, 78 % (n=7) of the studies whose educational practices exclusively targeted student competence did not align with the disability rights framework.

3.2. Analysis of reported educational practices according to Supports Paradigm

Concerning the type of support, as shown in Table 6, among the 21 articles reviewed, 62 % (n=13) reported educational practices categorized as specialized supports, 29 % (n=6) as generic supports, and 9 % (n=2) included both specialized and generic supports. Regarding the context in which these supports were provided, 76 % (n=16) of the articles documented supports delivered in mainstream settings, while 24 % (n=5) reported supports provided in segregated settings. In terms of the ecological levels involved, 43 % (n=9) of the articles described supports impacting only the biosystem, 52 % (n=11) impacting the microsystem, and 5 % (n=1) influencing the mesosystem.

Among the articles reporting practices impacting the biosystem level, only 22 % (n=2) incorporated a disability rights perspective (see Fig. 3). This percentage increased to 50 % (n=6) for articles affecting the micro- and mesosystem levels. Notably, all articles addressing the micro- and mesosystem levels (n=12) employed a social-ecological model of disability. Conversely, all articles lacking a social-ecological model (n=5) focused exclusively on practices at the biosystem level and utilized specialized supports.

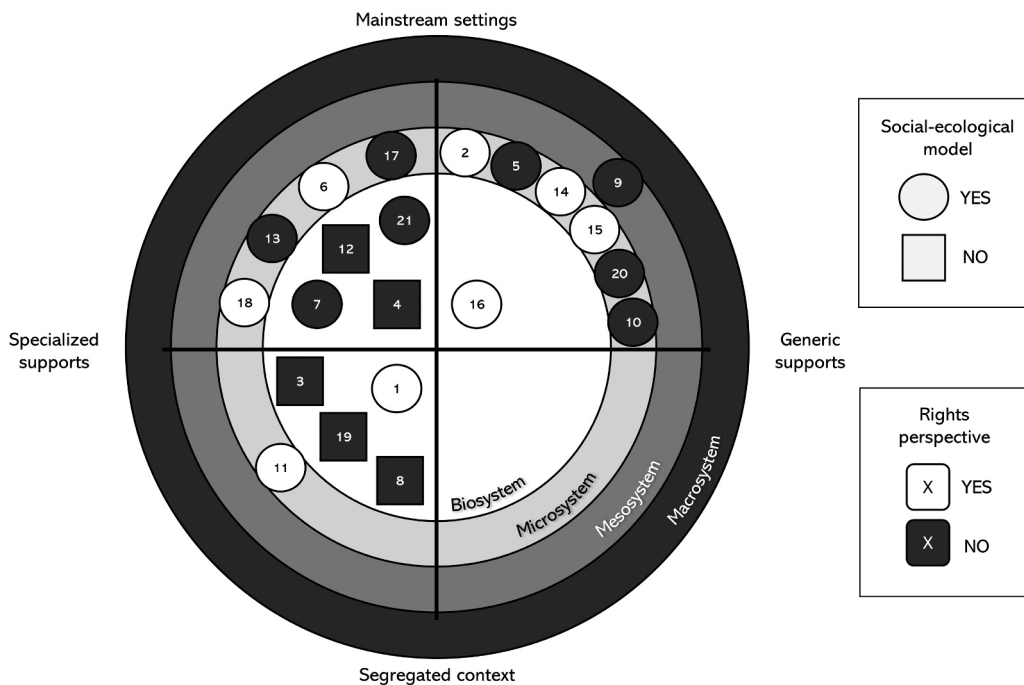


Fig. 3. Analysis of reported educational practices according to Supports Paradigm. *Note.* The articles are classified into four quadrants based on two dichotomous variables represented on two axes. The vertical axis represents the context in which the supports are provided (MAINSTREAM, above; SEGREGATED, below), and the horizontal axis represents the type of supports used (GENERIC, right; SPECIALIZED, left). These quadrants are overlaid on a circular diagram representing four levels of Bronfenbrenner's ecological development model: biosystem, microsystem, mesosystem, and macrosystem. The number within each figure corresponds to the number assigned to the articles. The shape of each article indicates the presence (circle) or absence (square) of the social-ecological model of disability. The color of each article indicates the presence (white) or absence (black) of the disability rights perspective.

4. Discussion

This scoping review aimed to assess the impact of QOLSM on higher education by identifying and analyzing educational practices that aim to enhance the QoL for students with disabilities. Guided by three research questions, the review mapped the scope and characteristics of existing research, assessed the alignment of reported educational practices with QOLSM, and identified gaps in the literature.

4.1. Research question 1

Despite the evident lack of research in this field, as demonstrated by the limited number of studies identified, this review indicates an upward trend in recent years, suggesting a growing interest in improving the QoL of higher education students with disabilities. This focus may address higher dropout rates among these students (Carballo et al., 2021; Getzel & Thoma, 2008) and promote their retention and success, aligning with global inclusive education goals (United Nations, 2015; UNESCO, 2022). The review included data from six industrialized countries, suggesting a possible link between a country's development level and the emphasis on educational practices that enhance QoL for students with disabilities. Future research should further investigate how socioeconomic development influences the adoption and research of inclusive educational strategies aimed at improving the QoL for this population.

The reviewed studies commonly exhibit methodological limitations, including inadequate sample characterization and a lack of rigorous experimental designs. Many studies failed to provide detailed demographic data on participants, and nearly half did not employ experimental designs, such as randomized controlled trials or repeated measures designs, to assess QoL interventions. These methodological shortcomings undermine the generalizability and replicability of findings, which are crucial for developing evidence-based practices aimed at improving the QoL for students with disabilities in higher education.

This review identified students with IDD as the most frequently represented, while those with mental disorders and physical disabilities were less prevalent. This finding contrasts with other studies on disability prevalence in higher education, which report varied results. For instance, studies from Japan (Japan Student Services Organization, 2021) and Spain (Universia, 2023) found that physical or organic disabilities were most prevalent, followed by mental and developmental disabilities, while a U.S. study (American College Health Association, 2022) reported ADHD as the most prevalent, followed by learning disabilities and sensory impairments. These discrepancies may be attributed to three factors: (1) the search terms in this review were aligned with QOLSM, originally developed in the field of IDD, potentially biasing the results toward studies involving students with IDD; (2) differences in educational inclusion policies across countries may influence the number and type of students with disabilities accessing higher education; and (3) inconsistent conceptions of disability across studies hinder comparability and generalizability of their results. Using international classifications like the ICD-11 (WHO, 2019) could improve consistency and facilitate cross-study comparisons and knowledge dissemination.

4.2. Research question 2

The review results indicate a poor alignment between the evaluated educational practices and the QOLSM (Gómez et al., 2021a; Verdugo et al., 2021). Only one-third of the articles adopted a disability rights framework (United Nations, 1948; United Nations, 2006), whereas nearly twice as many adhered to an inclusive education framework (UNESCO, 1994). Further investigation of this discrepancy is needed, as it may indicate a persistent view of Inclusive Education as a guiding principle (UNESCO, 1994) rather than a fundamental right (United Nations, 2006). Additionally, our results suggest that adopting a rights-based perspective may influence educational practices, as studies embracing this approach were more likely to implement strategies that not only enhanced students' skills but also removed environmental barriers to participation for students with disabilities. Future research should explore the potential of a rights-based perspective to influence support provision and QoL improvement, potentially driving institutional change toward greater inclusivity.

Regarding the social-ecological model of disability, while most articles theoretically aligned with a social-ecological model of disability, approximately half reported practices focusing solely on individual competence, reflecting a biomedical perspective of disability (Forstner, 2022). This discrepancy underscores an inconsistency between theoretical frameworks and their implementation in practice. Similarly, while most studies provided support in mainstream settings, supports were frequently delivered in a segregated or partially segregated manner, particularly for students with IDD. This practice, noted in previous studies (Uditsky & Hughson, 2012; Whirley et al., 2020), contradicts the principles of Inclusive Education (Messiou, 2016). While it may align with the presence principle of Inclusive Education, it represents only a preliminary step toward genuine inclusion.

Our results reveal a prevalence of specialized supports over generic ones, contrasting with the QOLSM's emphasis on promoting generic supports. Generic supports promote connections, interactions, and facilitating conditions, all key elements of QOLSM (Verdugo et al., 2021). The analysis further reveals the interaction between the type of support and other factors. Studies implementing generic supports typically adhered to a social-ecological model of disability, influencing both the students' characteristics (biosystem) and their proximal context (microsystem). Conversely, studies focusing on specialized supports often targeted only the student's characteristics. As QOLSM advocates (Gómez et al., 2021a), generic supports impact not only students but also their immediate environments and interactions.

Additionally, the ecological levels targeted (Bronfenbrenner & Morris, 1998) seem to be related to QoL domains improved. Interventions targeting the biosystem primarily enhanced emotional well-being, while those addressing micro- or mesosystem levels improved social inclusion, interpersonal relationships, rights, and emotional well-being. This relationship presents a promising area

for further investigation. Overall, these findings underscore the interconnectedness of QOLSM elements, including core values (e.g., social-ecological model of disability, rights framework, supports model), QoL multidimensionality, and support systems.

4.3. Research question 3

This review identified several gaps in this field. First, the paucity of studies highlights a lack of research on the role of QoL enhancement strategies in promoting inclusive higher education. Second, the lack of rigorous experimental designs underscores the necessity for more empirical, evidence-based research on QoL interventions. Third, the identified discrepancies between the theoretical advocacy and practical implementation of the social-ecological model of disability and the inclusive education model reveal significant practical-knowledge gaps. Future research should focus on bridging these gaps by enhancing the translation of theoretical perspectives into effective practice.

4.4. Limitations

This scoping review is subject to several limitations. First, the search strategy was limited to studies published in English and Spanish, which may have excluded relevant research from other languages and cultural contexts, thereby not fully capturing a global perspective. Future research should broaden the linguistic scope. Additionally, the search terms, which were defined under the QOLSM, may have influenced the results. Certain terms, such as “special educational needs,” are more specific to IDD, potentially narrowing the scope to studies involving students with IDD. Moreover, terms like “integration” and “special education” are traditionally associated with lower educational levels, which could have led to an unnecessarily high number of studies related to elementary, middle, or high school settings.

The inclusion criteria, focused on studies reporting educational practices and corresponding outcomes, have excluded descriptive and discursive articles. Future research should consider these article types, as they could provide valuable insights into the observed relationship between the core values of the QOLSM—such as the social-ecological model of disability and the rights framework—provided supports, and their impact on QoL domains. Finally, future scoping reviews should incorporate grey literature to gain a more comprehensive understanding of the field.

5. Conclusions

This review identified 21 studies that met the eligibility criteria, with many employing low-quality evidence designs. Despite an observed increase in publications, conducting a systematic review is not recommended at this stage due to the limited number of studies and their design heterogeneity. The reported educational practices were poorly aligned with the QOLSM, highlighting its limited impact on fostering inclusion in higher education. Specifically, acknowledging a disability rights framework, recognizing the QoL multidimensionality, and using generic supports were among the least reported QOLSM characteristics. Most QoL interventions targeted students with IDD, reflecting that while the QOLSM is applicable to all disabilities, its implementation remains largely concentrated within the IDD field.

This review revealed that adopting a rights-based framework and a social-ecological model of disability can influence the type of support provided, the target populations, the social-ecological levels impacted, and the QoL domains enhanced. Therefore, as advocated by the QOLSM (Verdugo & Schalock, 2024), the values upheld by an institution are critical in shaping the supports systems it implements, which, in turn, determine the QoL outcomes for students with disabilities. Higher education institutions should consider these factors when designing and implementing processes of innovation and change toward inclusive educational models.

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CRedit authorship contribution statement

Inés Heras: Writing – review & editing, Supervision, Methodology, Investigation, Formal analysis, Conceptualization. **Óscar Gonzalo:** Writing – review & editing, Writing – original draft, Methodology, Investigation, Formal analysis, Conceptualization. **Cuauhtémoc Meza:** Investigation, Formal analysis, Conceptualization. **José Luis Castillo:** Writing – review & editing, Supervision, Methodology, Investigation, Formal analysis, Conceptualization. **Miguel Ángel Verdugo:** Writing – review & editing, Supervision, Conceptualization.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

We have shared the PRISMA-ScR-Fillable-Checklist (Supplemental Data A) and a detailed overview of the reported educational practices and associated QoL outcomes (Supplemental Data B).

Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at [doi:10.1016/j.ridd.2024.104850](https://doi.org/10.1016/j.ridd.2024.104850).

References*

- American College Health Association. (2022). *American College Health Association-National College Health Assessment III: Undergraduate Student Reference Group Data Report Spring 2022*. Spring, MD: ACHA: Silver.
- Amor, A. M., Fernández, M., Verdugo, M. A., Aza, A., & Schalock, R. L. (2020). Shaping the faces of the prism: Rights, supports, and quality of life for enhancing inclusive education opportunities in students with intellectual disability. *Man Disability Society*, 49(3), 5–33. <https://doi.org/10.5604/01.3001.0014.3573>
- Arksey, H., & O'Malley, L. (2005). Scoping studies: Towards a methodological framework. *International Journal of Social Research Methodology*, 8(1), 19–32. <https://doi.org/10.1080/1364557032000119616>
- **Ashbaugh, K., Koegel, R. L., & Koegel, L. K. (2017). Increasing social integration for college students with autism spectrum disorder. *Behavioral Development Bulletin*, 22(1), 183–196. <https://doi.org/10.1037/dbd0000057>
- Association for Higher Education Access and Disability (2022). Students with Disabilities Engaged with Support Services in Higher Education in Ireland 2020/21. AHEAD Educational Press. Retrieved from: (<https://www.ahead.ie/Launch-of-21-Report-on-Numbers-of-Students-with-Disabilities-in-Higher-Education>).
- Bronfenbrenner, U., & Morris, P. A. (1998). The ecology of developmental process. In R. Lerner (Ed.), *Handbook of Child Psychology* (5th ed., pp. 993–1028). John Wiley & Sons.
- Carballo, R., Morgado, B., & Cortés-Vega, M. D. (2021). Transforming faculty conceptions of disability and inclusive education through a training programme. *International Journal of Inclusive Education*, 25(7), 843–859. <https://doi.org/10.1080/13603116.2019.1579874>
- **Dysterheft, J., Chaparro, G., Rice, L., & Rice, I. (2018). Investigating the outcomes and perceptions of an inclusive aquatic exercise class for university students with physical disabilities. *Journal of Postsecondary Education and Disability*, 31(1), 41–56.
- Forstner, M. (2022). Conceptual models of disability: The development of the consideration of non-biomedical aspects. *Disabilities*, 2(3), 540–563. <https://doi.org/10.3390/disabilities2030039>
- Fundación Universia (2023). VI Estudio sobre la Inclusión de Personas con Discapacidad en el Sistema Universitario Español. 6th Study on the Inclusion of People with Disabilities in the Spanish University System. Retrieved from: (<https://www.fundacionuniversia.net/content/dam/fundacionuniversia/pdf/VI%20Estudio%20Universidad%20y%20Discapacidad%20ACCESIBLE.pdf>).
- García-González, J. M., Gutiérrez Gómez-Calcerrada, S., Solera Hernández, E., & Ríos-Aguilar, S. (2021). Barriers in higher education: Perceptions and discourse analysis of students with disabilities in Spain. *Disability Society*, 36(4), 579–595. <https://doi.org/10.1080/09687599.2020.1749565>
- Getzel, E. E., & Thoma, C. A. (2008). Experiences of college students with disabilities and the importance of self-determination in higher education settings. *Career Development for Exceptional Individuals*, 31(2), 77–84. <https://doi.org/10.1177/0885728808317658>
- Gómez, L. E., Monsalve, A., Morán, M. L., Alcedo, M.Á., Lombardi, M., & Schalock, R. L. (2020). Measurable indicators of CRPD for people with intellectual and developmental disabilities within the quality of life framework. *International Journal of Environmental Research and Public Health*, 17(14), 14. <https://doi.org/10.3390/ijerph17145123>
- Gómez, L. E., Morán, L., Al-Halabi, S., Swerts, C., Verdugo, M. A., & Schalock, R. L. (2022). Quality of life and the International Convention on the Rights of Persons with Disabilities: Consensus indicators for assessment. *Psicothema*, 34(2), 182–191. <https://doi.org/10.7334/psicothema2021.574>
- Gómez, L. E., Schalock, R. L., & Verdugo, M. A. (2021a). A new paradigm in the field of intellectual and developmental disabilities: Characteristics and evaluation. *Psicothema*, 33(1), 28–35. <https://doi.org/10.7334/psicothema2020.385>
- Gómez, L. E., Schalock, R. L., & Verdugo, M. A. (2021b). A quality of life supports model: Six research-focused steps to evaluate the model and enhance research practices in the field of IDD. *Research in Developmental Disabilities*, 119, Article 104112. <https://doi.org/10.1016/j.ridd.2021.104112>
- Harpur, P. (2012). Embracing the new disability rights paradigm: The importance of the convention on the rights of persons with disabilities. *Disability Society*, 27(1), 1–14. <https://doi.org/10.1080/09687599.2012.631794>
- **Heiman, T., & Olenik-Shemesh, D. (2012). Students with learning disabilities in higher education: Use and accessibility of assistive technology, website courses and their correlation to students' hope and wellbeing. *Journal of Learning Disabilities*, 45, 308–318. <https://doi.org/10.1177/0022219410392047>
- **Hendrickson, J. M., Vander Busard, A. M. Y., Rodgers, D., & Scheidecker, B. (2013). College students with intellectual disabilities: How are they faring? *Journal of College and University Student Housing*, 40(1), 186–199.
- Japan Student Services Organization (2021). *National Survey of Supports for Students with Disabilities in Higher Education Settings in Japan*. Retrieved from (https://www.jasso.go.jp/en/statistics/shougai_gakusei/_icsFiles/afieldfile/2022/07/15/fy2018_survey.pdf).
- **Kreider, C. M., Medina, S., Lan, M. F., Wu, C. Y., Percival, S. S., Byrd, C. E., & Mann, W. C. (2018). Beyond academics: A model for simultaneously advancing campus-based supports for learning disabilities, STEM students' skills for self-regulation, and mentors' knowledge for co-regulating and guiding. *Frontiers in Psychology*, 9, Article 1466. <https://doi.org/10.3389/fpsyg.2018.01466>
- **Lartz, M. N., Stoner, J. B., & Stout, L. J. (2008). Perspectives of Assistive Technology from Deaf Students at a Hearing University. *Assistive Technology Outcomes and Benefits*, 5(1), 72–91.
- **Lee, C. E., Day, T. L., Carter, E. W., & Taylor, J. L. (2021). Examining growth among college students with intellectual and developmental disability: A longitudinal study. *Behavior Modification*, 45(2), 324–348. <https://doi.org/10.1177/0145445520982968>
- Lombardi, M., Vandenbussche, H., Claes, C., Schalock, R. L., De Maeyer, J., & Vandeveld, S. (2019). The concept of quality of life as framework for implementing the UNCRPD. *Journal of Policy and Practice in Intellectual Disabilities*, 16(3), 180–190. <https://doi.org/10.1111/jppi.12279>
- **McKay, D., Banner, R., Sherif, V., & Rhodes, A. (2015). *Learning, Independence, and Relationships: The Impact of Supported Higher Education on Students with Intellectual Disabilities. Research Brief. Winter 2015*. Human Development Institute.
- **McNicholl, A., Desmond, D., & Gallagher, P. (2023). Assistive technologies, educational engagement and psychosocial outcomes among students with disabilities in higher education. *Disability and Rehabilitation: Assistive Technology*, 18(1), 50–58. <https://doi.org/10.1080/17483107.2020.1854874>
- Messiou, K. (2016). Research in the field of inclusive education: time for a rethink? *International journal of inclusive education*, 21(2), 146–159. <https://doi.org/10.1080/13603116.2016.1223184>

* Identifies references included in the review

- Morán, L., Gómez, L. E., Verdugo, M. A., & Schalock, R. L. (2023). The Quality of Life Supports Model as vehicle for implementing rights. *Behavioral Sciences*, 13(5), 365. <https://doi.org/10.3390/bs13050365>
- Moriña, A., & Biagiotti, G. (2022). Inclusion at university, transition to employment and employability of graduates with disabilities: A systematic review. *International Journal of Educational Development*, 93, Article 102647. <https://doi.org/10.1016/j.ijedudev.2022.102647>
- Newman, L. A., Madaus, J. W., Lalor, A. R., & Javitz, H. S. (2019). Support receipt: Effect on postsecondary success of students with learning disabilities. *Career Development and Transition for Exceptional Individuals*, 42(1), 6–16. <https://doi.org/10.1177/2165143418811288>
- Norwich, B. (2019). From the Warnock report (1978) to an education framework commission: A novel contemporary approach to educational policy making for pupils with special educational needs/disabilities. *Frontiers in Education*, 4, 72. <https://doi.org/10.3389/educ.2019.00072>
- **O'Shea, A., Isadore, K., & Galván, A. (2023). Support for the basic psychological needs and satisfaction with health and quality of life in college students with disabilities. *Journal of American College Health*, 71(1), 130–139. <https://doi.org/10.1080/07448481.2021.1879816>
- **O'Shea, A., & Salzer, M. (2020). Autonomy supportive classrooms and wellbeing in college students with psychiatric disabilities. *Journal of Postsecondary Education and Disability*, 33(2), 155–168.
- **Parker, D. R., & Boutelle, K. (2009). Executive function coaching for college students with learning disabilities and ADHD: A new approach for fostering self-determination. *Learning Disabilities Research Practice*, 24(4), 204–215. <https://doi.org/10.1111/j.1540-5826.2009.00294.x>
- **Parker, D. R., Hoffman, S. F., Sawilowsky, S., & Rolands, L. (2011). An examination of the effects of ADHD coaching on university students' executive functioning. *Journal of Postsecondary Education and Disability*, 24(2), 115–132.
- **Piers, L., & Duquette, C. A. (2016). Facilitating academic and mental health resilience in students with a learning disability. *Exceptionality Education International*, 26(2). <https://doi.org/10.5206/eei.v26i2.7739>
- **Richman, E. L., Rademacher, K. N., & Maitland, T. L. (2014). Coaching and college success. *Journal of Postsecondary Education and Disability*, 27(1), 33–50.
- **Rillotta, F., Arthur, J., Hutchinson, C., & Raghavendra, P. (2020). Inclusive university experience in Australia: Perspectives of students with intellectual disability and their mentors. *Journal of Intellectual Disabilities*, 24(1), 102–117. <https://doi.org/10.1177/1744629518769421>
- **Rodríguez Herrero, P., Izuzquiza Gasset, D., & Cabrera García, A. (2020). Inclusive education at a Spanish University: The voice of students with intellectual disability. *Disability Society*, 36(3), 376–398. <https://doi.org/10.1080/09687599.2020.1745758>
- **Ryan, J. B., Randall, K. N., Walters, E., & Morash-MacNeil, V. (2019). Employment and independent living outcomes of a mixed model post-secondary education program for young adults with intellectual disabilities. *Journal of Vocational Rehabilitation*, 50(1), 61–72. <https://doi.org/10.3233/JVR-180988>
- Sánchez-Díaz, M. D. L. N., & Morgado, B. (2022). Moving toward the inclusion of university students with disabilities: Barriers, facilitators, and recommendations identified by inclusive faculty. *The Journal of Continuing Higher Education*, 70(3), 175–191. <https://doi.org/10.1080/07377363.2021.1946635>
- Sandoval, M., Morgado, B., & Doménech, A. (2021). University students with disabilities in Spain: Faculty beliefs, practices and support in providing reasonable adjustments. *Disability Society*, 36(5), 730–749. <https://doi.org/10.1080/09687599.2020.1751078>
- Schalock, R. L., & Luckasson, R. (2021). Enhancing research in intellectual and developmental disabilities through person-centered evaluation. *Research in Developmental Disabilities*, 117, Article 104043. <https://doi.org/10.1016/j.ridd.2021.104043>
- Schalock, R. L., & Verdugo, M. A. (2007). El concepto de calidad de vida en los servicios y apoyos para personas con discapacidad intelectual. *Siglo Cero*, 38(4), 21–36.
- Schalock, R. L., Luckasson, R., & Tassé, M. J. (2021a). Ongoing transformation in the field of IDD: Taking action for future progress. *Intellectual and Developmental Disabilities*, 59, 380–391. <https://doi.org/10.1352/1934-9556-59.5.380>
- Schalock, R. L., Luckasson, R., & \$1 \$2 (2021b). Intellectual Disability: Definition, Diagnosis, Classification, and Systems of Supports (12th Ed.). *American Association on Intellectual and Developmental Disabilities*.
- Schalock, R. L., Verdugo, M. A., & Braddock, D. L. (2002). *Handbook on quality of life for human service practitioners*. American Association on Mental Retardation.
- Seale, J., Georgeson, J., Mamas, C., & Swain, J. (2015). Not the right kind of 'digital capital'? An examination of the complex relationship between disabled students, their technologies and higher education institutions. *Computers Education*, 82, 118–128. <https://doi.org/10.1016/j.compedu.2014.11.007>
- Shogren, K. A., Luckasson, R., & Schalock, R. L. (2021). Leveraging the power of context in disability policy development, implementation, and evaluation: Multiple applications to enhance personal outcomes. *Journal of Disability Policy Studies*, 31(4), 230–243. <https://doi.org/10.1177/1044207320923656>
- Smith, S., Woodhead, E., & Chin-Newman, C. (2019). Disclosing accommodation needs: exploring experiences of higher education students with disabilities. *International Journal of Inclusive Education*, 25(12), 1358–1374. <https://doi.org/10.1080/13603116.2019.1610087>
- **Spassiani, N. A., Ó Murchadha, N., Cline, M., Biddulph, K., Conradie, P., Costello, F., ... Tully, K. (2017). Likes, dislikes, supports and barriers: the experience of students with disabilities in university in Ireland. *Disability Society*, 32(6), 892–912. <https://doi.org/10.1080/09687599.2017.1320272>
- **Subrayen, R., & Suknunan, S. (2019). Learning communities for teaching practice school placements: A higher education initiative to promote equity for students with disabilities. *Journal of Student Affairs in Africa*, 7(2), 27–39. <https://doi.org/10.24085/jsaa.v7i2.3823>
- Taneja-Johansson, S. (2021). Facilitators and barriers along pathways to higher education in Sweden: A disability lens. *International Journal of Inclusive Education*, 28(3), 311–325. <https://doi.org/10.1080/13603116.2021.1941320>
- Thompson, R. J., Bradley, V. J., Buntinx, W. H. E., Schalock, R. L., Shogren, K. A., Snell, M. E., Wehmeyer, M. L., Borthwick-Duffy, S., Coulter, D. L., Craig, E. P. M., Gomez, S. C., Lachapelle, Y., Luckasson, R. A., Reeve, A., Sprent, S., Tassé, M. J., Verdugo, M. A., & Yeager, M. H. (2009). Conceptualizing supports and the support needs of people with intellectual disability. *Intellectual and Developmental Disabilities*, 47(2), 135–146. <https://doi.org/10.1352/1934-9556-47.2.135>
- Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., ... Straus, S. E. (2018). PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation. *Annals of internal medicine*, 169(7), 467–473. <https://doi.org/10.7326/M18-0850>
- Uditsky, B., & Hughson, E. (2012). Inclusive postsecondary education—An evidence-based moral imperative. *Journal of Policy and Practice in Intellectual Disabilities*, 9(4), 298–302. <https://doi.org/10.1111/jppi.12005>
- United Nations. (1948, December 10). *Universal Declaration of Human Rights*. United Nations. Retrieved from (<https://www.un.org/en/about-us/universal-declaration-of-human-rights>).
- United Nations. (2006, december 13). *Convention on the Rights of Persons with Disabilities*. United Nations. Retrieved from (<https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html>).
- United Nations. (2015, september 25). *2030 Agenda for Sustainable Development*. United Nations. Retrieved from (<https://www.un.org/sustainabledevelopment/development-agenda/>).
- UNESCO. (1994). *Final Report: World Conference on Special Needs Education: Access and Quality*. UNESCO. Retrieved from (<https://unesdoc.unesco.org/ark:/48223/pf0000098427>).
- UNESCO. (2015). *Education 2030: Incheon Declaration and Framework for Action: Towards inclusive and equitable quality education and lifelong learning for all*. UNESCO. Retrieved from (<https://unesdoc.unesco.org/ark:/48223/pf0000243278?posInSet=1&queryId=38529ad8-78f8-4807-b668-12078020e5e6>).
- UNESCO. (2022). *Reimagining our futures together: a new social contract for education*. UNESCO. Retrieved from (<https://unesdoc.unesco.org/ark:/48223/pf0000379707>).
- Verdugo, M. A., Amor González, A. M., Fernández Sánchez, M., Navas Macho, P., & Calvo Álvarez, I. (2020). La regulación de la inclusión educativa del alumnado con discapacidad intelectual: una reforma pendiente. The regulation of inclusive education of students with intellectual disability: a pending reform. *Siglo Cero*, 49(2), 27–58. <https://doi.org/10.14201/scero2018492758>
- Verdugo, M. A., Navas, P., Gómez, L. E., & Schalock, R. L. (2012). The concept of quality of life and its role in enhancing humanrights in the field of intellectual disability. *Journal of Intellectual Disability Research*, 56, 1036–1045. <https://doi.org/10.1111/j.1365-2788.2012>
- Verdugo, M. A., & Schalock, R. L. (2024). From a concept to a theory: The six eras of quality of life research and application. *Research in Developmental Disabilities*, 150, Article 104763. <https://doi.org/10.1016/j.ridd.2024.104763>
- Verdugo, M. A., Schalock, R. L., & Gómez, L. E. G. (2021). El modelo de calidad de vida y apoyos: La unión tras veinticinco años de caminos paralelos. The quality of life supports model: Twenty-five years of parallel paths have come together. *Siglo Cero*, 52(3), 9–28. <https://doi.org/10.14201/scero2021523928>
- Verdugo, M. A., Schalock, R. L., & Gómez, L. E. (2024). The quality of life supports model as a major component in applying the quality of life paradigm. *Journal of Policy and Practice in Intellectual Disabilities*, 21(1), Article e12468. <https://doi.org/10.1111/jppi.12468>

- Walker, H. M., Calkins, C., Wehmeyer, M. L., Walker, L., Bacon, A., Palmer, S. B., & Johnson, D. R. (2011). A social-ecological approach to promote self-determination. *Exceptionality, 19*(1), 6–18. <https://doi.org/10.1080/09362835.2011.537220>
- Warnock, M. (1978). Special educational needs: report of the Committee of Enquiry into the Education of Handicapped Children and Young People. Her Majesty's Stationary Office.
- **Weinkauf, T. (2002). College and university? You've got to be kidding: Inclusive postsecondary education for adults with intellectual disabilities. *Crossing Boundaries, 1*(2), 28–36.
- Whirley, M. L., Gilson, C. B., & Gushanas, C. M. (2020). Postsecondary education programs on college campuses supporting adults with intellectual and developmental disabilities in the literature: A scoping review. *Career Development and Transition for Exceptional Individuals, 43*(4), 195–208. <https://doi.org/10.1177/2165143420929655>
- WHO. (2019). *ICD-11: International classification of diseases (11th revision)*. Retrieved from (<https://icd.who.int/>).