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Cognitive Behavioral Therapy Adaptation for Youth Aged 15-24 with Intellectual Disability and Depressive Symptoms: Scoping Review

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The prevalence of mental health problems in people with intellectual disability is higher than people in general. Depression and anxiety are common mental disorders that people with intellectual disability experience in their lives. Since the youth age range is a transition from childhood to adulthood, it is important to address the mental health problems, specifically depression, amongst youth with intellectual disability. Cognitive behavioral therapy is a promising treatment for depression among this population, while due to the low cognitive ability of youth with intellectual disability, adaptation to this therapy is needed. This study aims to investigate adaptations to cognitive behavior therapy and outcome measurement instruments among young adults aged between 15 and 24 with ID who have symptoms of depression. To address the study's aim, a systematic search was conducted across four electronic databases: MEDLINE, CINAHL, PsycINFO, and Scopus, resulting in the selection of eight articles. The inclusion criteria were selected based on the PIO framework. The result demonstrated that three CBT adaptations, including simplification, language, and developmental level, were the most frequent. Also, similar adaptations were made to self-report outcomes measurement tools under the categories of adaptations to content and administration procedure. The study concluded that to effectively advocate for the voice of youth with intellectual disabilities (ID), it is essential to address countertransference and rehabilitation approaches within the adaptations category. Additionally, to have a comprehensive assessment of mental health problems, there is a need for the adaptation of self-report measurement instruments.

Keywords: Cognitive Behavioral Therapy [CBT], Intellectual Disability [ID], Youth, Depression, Adaptation

Contents

1 Introduction

The prevalence of young adults experiencing mental disorders is 15 percent of all diseases across the globe (World Health Organization, 2024). Also, emotional disorders, including anxiety and depression, are more common among older adolescents.

This prevalence is a cause of concern since depressive disorder and anxiety negatively influence school attendance and schoolwork. Additionally, social withdrawal causes isolation, loneliness, and depression and can lead to suicide. Probably depressive symptoms also under the threshold for having a depression diagnosis can affect well-being and functioning in everyday life (Granlund et al, 2021). It is reported that people with Intellectual disabilities (IDs) experience mental health problems (40%) more than the population in general (Melville et al., 2023; Dagnan et al., 2023). Anxiety and depression are the most common mental health problems that youth with intellectual disabilities and /or developmental disabilities (IDDs) experience (Berg et al., 2024).

These mental health problems and their comorbidity with ID can be due to biological, psychological, and social factors that people with ID experience (Tapp et al., 2023). Biological factors, including genetic and neurodevelopmental conditions that affect brain development, emotional regulation, and stress responses (Cooper et al., 2007). Additionally, adverse life events cause consequences, including psychological trauma in people with ID (Bond et al., 2019). Furthermore, Bond et al. (2019) explained that people with ID are more likely to be exposed to life events because of their dependency, having less autonomy, and different living conditions, including abuse, neglect, or loss of caregivers. Moreover, limited verbal and communication skills in people with ID are barriers to self-reporting their internal emotional status, which can cause delays in diagnoses of mental health problems and lead to chronic mental disorders (Charlot & Beasley, 2013).

Intellectual disability (ID) is a neurodevelopmental disorder, which is defined by a diagnosis including three specific criteria (American Psychiatric Association, 2013). According to DSM-5, these criteria include deficits in intellectual functioning (reasoning, problem solving, abstract reasoning, etc), deficits in adaptive functioning (conceptual, social, practical skills, etc), and onset of these deficits in childhood. Concerning the classification ID severity, DSM-5 has more emphasis on daily functioning than DSM-IV (Papazoglou et al., 2014). DSM-4 described, approximate IQ range of 50-69, 36-49, 20-35, and <20 for people with mild, moderate, severe, and profound intellectual disability, respectively (Wu & Boat, 2015). In DSM-5, mild, moderate, severe and profound ID are defined as support levels required as people who can live independently with minimum support, live independently

with moderate support, live with daily assistance for self-care and safety supervision, and require 24-hour care, respectively (Wu & Boat, 2015). In this study, another requirement was that individuals had to have a diagnosis of ID; however, when considering the level of support needed, most individuals would probably be able to live their lives with minimal to moderate support.

According to Jahoda et al. (2024), the first complexity to address when looking into mental health problems in people with ID is their ability to self-report sadness when assessing depression, because of their difficulties in communication and expressing their internal status. So, to be able to have a reliable self-report of internal status of individuals with ID and meet their special needs due to their limited cognitive and communication ability, adaptations to depression assessment tools in needed (Kramer & Schwartz, 2017). Also, depression may vary in manifestation in people with ID, and a serious observable change in daily routine is needed to be diagnosed by relatives or professionals. Hence, recognizing the depressive signs and symptoms in people with ID partly depends on their caregivers, and whether they can detect changes in appetite, crying, sleep patterns, fatigue, and agitation (Jahoda et al., 2024).

National Institute for Health and Care Excellence [NICE] (2016) suggests that a clinically appropriate and cost-effective depression treatment for individuals with ID is psychological therapy, especially Cognitive Behaviour Therapy [CBT]. Also, in the NICE guideline (2016), it is mentioned that due to learning difficulties in these populations, therapists are unwilling to utilize CBT for psychological treatment, including depression or anxiety; thus, individuals with ID are missing the effectiveness of CBT for mental health problem treatments. However, Dagnan et al. (2023) mentioned that therapists do not need to gain new skills to utilise CBT for the treatment of individuals with ID, as they can make some adaptations to the CBT program (e.g., visual aids, simplified language, caregivers' involvement) using their existing competencies.

Due to limited articles and diversity in study design on how CBT intervention and outcomes measures are adapted to the needs of youth with ID and symptoms of depression, a scoping review was selected to have a broade exploration of adaptations, identify gaps in the literature and mapping the existing adaptation to CBT and outcome measures (Arksey & O'Malley, 2005). As Arksey and O'Malley (2005) explained, a systematic review analyses a more well-defined clinical trial and the effectiveness of an intervention with more narrowly defined questions, so a scoping review is more suitable for the aim of this study to investigate the adaptations are made to CBT interventions and outcome measurement tools for depression treatment among youth with ID.

1.1 Background

1.1.1 Cognitive Behavioral Therapy

CBT is a promising set of psychological interventions that helps people to identify problems and develop individuals' skills and strategies, aiming to increase their quality of life (Silberg et al., 2023). The main historical origin of CBT, as described by Beck, is a structured and time-limited intervention that mainly identifies and modifies dysfunctional thought patterns and behaviors to modulate emotional distress (Beck, 1993).

According to a meta-analysis, CBT is an effective evidence-based treatment for psychological problems, including depression and anxiety in typical adolescents and adults (Hofmann et al., 2012). According to Silver et al. (2023), some complementary strategies and techniques of CBT include cognitive restructuring, problem-solving, biofeedback, psychoeducation, and relaxation techniques such as progressive muscle relaxation or relaxed breathing.

1.1.2 Adaptations to The CBT Intervention

Due to differences in cognitive functioning, mobility, emotional regulation, and communication ability in people with ID, adaptations may be required when applying CBT in collaboration with people with ID (Dagnan et al., 2023; Silberg et al., 2023; Surley & Dagnan, 2019). Hassiotis et al. (2013) found that limited cognitive development in individuals with intellectual disabilities can make it difficult for them to differentiate between thoughts, emotions, and behaviors, which presents challenges for effectively implementing CBT. Nonetheless, they noted that recent research indicates individuals with mild to moderate intellectual disabilities are capable of connecting situations to their emotions and, consequently, can distinguish between thoughts, feelings, and Behaviors. Indeed, CBT should be adapted to meet the needs of clients regardless of their differences, and this includes applying a standardized approach for individuals with intellectual disabilities (Surley & Dagnan, 2019). Furthermore, several reviews (Silberg et al., 2023; Surley & Dagnan, 2019) have stressed the importance of adapting CBT, while also maintaining fidelity to the core components of the standard treatment as much as possible. Hurley et al. (1998) have categorized adaptations into nine types: simplification, language, activity, developmental level, directive approaches, flexibility, context/involvement of supporters, therapy relationship, and addressing disability.

1.1.3 Adaptation to the outcomes measurement Instruments

However, for further depression diagnostic or screening assessment in individuals with ID, instruments based on both self-report and informant-report may be used (Hermans &

Evenhuis, 2010). As Hermans and Evenhuis (2010) discussed in a systematic review, the number of promising informant-report instruments for screening depression amongst people with ID is higher than self-report instruments. Many of the instruments for depression measurement are not adapted to the needs for cognitive adaptations of instrument form and content of people with ID, therefore, self-reporting is not utilized as much as possible (Scott & Havercamp, 2018).

1.2 Universal Rights and Youth Definition

1.2.1 United Nations Convention on the Rights of Persons with Disabilities

According to the United Nations Convention on the Rights of Persons with Disabilities (2006), "persons with disabilities have the right to the enjoyment of the highest attainable standard of health without discrimination based on disability."

1.2.2 Adolescents and Youth Definitions

According to the United Nations Department of Economic and Social Affairs (2013), youth represents a transitional stage from childhood dependence to adult independence, which contributes to its fluidity compared to other, more clearly defined age groups. Nevertheless, for statistical and developmental planning purposes, the United Nations defines youth as individuals aged 15 to 24, offering a standardized framework for youth-focused initiatives.

1.3 Theoretical frameworks

The Bioecological model is a "theoretical system for scientific study of human development over time" (Bronfenbrenner & Morris, 2007; Wade & Halligan, 2017). While the International Classification of Functioning, disability and health(ICF) frameworks and bio-psycho-social model emphasize on disability as the multifactorial nature of disability (WHO, 2006), the Bioecological model emphasizes the dynamic interaction of individuals with the environment in different layers over time that can affect CBT and outcomes measures' adaptations as a facilitator for a person's development. The bioecological model provides a sensitive framework for human development, focusing on CBT and outcome measures that are adjusted in content and delivery based on the cognitive abilities of individuals with ID and their dynamic relationships with family, therapists, and various settings within extended environments (Rosa & Tudge, 2013).

Bronfenbrenner and Morris (2007) defined human development as a continuing change in an individual's biological and psychological characteristics. They introduced the four key components of the theoretical model, encompassing Process, Person, Context, and Time [PPCT]. Rosa and Tudge (2013) mentioned that the first P in the PPCT model stands for proximal processes, which are defined as ongoing processes that occur because of an

interaction between a person and their immediate environment (e.g., CBT sessions and the relationship with a therapist, involvement of caregivers in homework). The proximal processes affect human development by becoming progressively complex. To effectively contribute to human development, the proximal processes need to happen consistently over a long period. The second P in this model refers to Person. As explained, force characteristics, demand characteristics, and resource characteristics are the three types of person characteristics that affect human development (Rosa & Tudge, 2013). For instance, the cognitive ability of the person with ID (resource characteristics) affects how they engage with outcome measurement tools, CBT content, and necessary adaptations.

According to Rosa and Tudge (2013), C refers to contexts in which proximal processes occur, involving Microsystem, Mesosystem, Ecosystem, and Macrosystem. The authors defined the Microsystem as the most immediate environment in which the person interacts, including family, school, and peers (e.g., therapist's simplified language, involvement of caregivers in homework). The mesosystem refers to the interaction between different sectors of the Microsystem, in which the developing person is not directly present but is affected by it (e.g., proxy reports of outcomes, therapist and caregiver interactions). The exosystem is a broader context that influences human development indirectly (e.g., decisions about the length of therapy sessions in health services to suit a person with ID). The macro system encompasses the culture, beliefs, ideology, national economic circumstances, and laws that the developing person lives in and that affect their development (e.g., the negative stigma about the ability of the targeted population). Lastly, the letter T in the PPCT model refers to both personal experience and the historical period in which the developing organism lives, as well as its impact on their biological and psychological development (e.g., adaptations based on the developmental level of the person with ID).

1.4 Study Rationale

As Hronis et al. (2022) mentioned, youth with ID have a higher rate of internalized and externalized health problems in comparison with typically developed peers, and untreated mental health problems increase the risk of psychiatric disorders in adulthood. However, research demonstrated that individuals with mild to moderate ID have cognitive competencies to utilize CBT intervention, which requires adaptations to be effective in reducing mental health issues, including depression, anxiety, and anger (Hronis et al., 2022; Scott & Havercamp, 2018)

Silberg et al. (2023), in a scoping review, recommended examining how CBT is adapted for specific age groups, highlighting the role of age as a potential moderating factor

in interventions. Given the existing gap in research on CBT adaptations for adolescents and young adults with intellectual disabilities who experience depressive symptoms, this review aims to address this importance.

1.5 Study Aim

This study aims to investigate adaptations to cognitive behavior therapy and outcome measurement instruments among young adults aged between 15 and 24 with ID who have symptoms of depression. Through identifying these adaptations, this paper suggests that therapists in mainstream settings utilize the findings to improve intervention practice for depression treatment in youth with ID. Therefore, this study addresses the following questions:

1- What adaptations are made to the strategies used for cognitive behavioral therapy (CBT) for depression to improve mental health or reduce mental health problems to suit adolescents and young adults with ID?
2- What type of adaptations are made to the measurement instruments to assess outcomes?

2 Method

2.1 Study Design

This study will investigate the area of the above research question by following a scoping literature review design. A scoping literature review aims to summarize and publish the findings of existing literature in a specific area of research, providing policymakers and those with limited time to gather such information with the necessary information (Arksey & O'Malley, 2005). Also, it sheds light on the gaps in the literature where no evidence-based research has been conducted. The present study follows the methodological framework developed by Arksey and O'Malley (2005) and the PRISMA-ScR reported guideline presented by Tricco et al. (2018).

2.2 Eligibility Criteria

A PICO framework was employed in this scoping review to formulate the aim of this scoping review (Morgan et al., 2018). In this paper, studies were eligible if they included youth and young adults 15-24 years old with ID and depressive symptoms. Studies must have some adaptation to the structure, procedure, or measurements of the CBT intervention. Only studies published in the English language in the last 10 years are encompassed in this study. This time frame was selected because of updated clinical guidelines encompassing the NICE guideline (2016) for mental health treatment of people with learning difficulties, also capturing the most recent intervention practice and measurement tools.

- Population (P): Youth and young people aged 15-24 with intellectual disabilities (ID) who exhibit symptoms of depression.
- Intervention (I): Adaptation of Cognitive Behavioral Therapy (CBT) tailored to the unique needs of people with ID.
- Comparison (C): No comparison group
- Outcome (O): improvement in mental health or reductions in mental health problems (symptoms of depression)

2.3 Information Sources

The search process began on November 18, 2024, to test various search terms and databases, aiming to identify the most relevant articles on CBT interventions for people with ID and to recognize the existing gaps related to the topic of interest. The last search was conducted on April 12, 2025, in four electronic databases that were selected based on their disciplinary relevance, including MEDLINE, CINAHL, PsycINFO, and Scopus. MEDLINE was selected in the search based on the guidance of one of the university's librarians, since it covers the literature in biomedical subjects and health education. Also, MEDLINE contains the indexed articles in both PubMed and ERIC databases and gives access to MeSH (medical subject headings) that have been used to enhance the accuracy of the search.

PsycINFO is selected since it is a preferred database in the psychology field that indexes psychological treatments, cognitive therapies, and developmental disorders. Moreover, the reason for selecting the CINAHL database was that it covers nursing and health-related scientific articles, book chapters, and dissertations. Although CINAHL has an overlap with MEDLINE, it includes 13 journals that MEDLINE does not cover, which increases the rationale for including them in this study (Krieger et al., 2016).

The search terms comprised ("cognitive behavioral therapy" OR psychoeducation OR "behavioral activation" OR "cognitive behavioural therapy" OR "cognitive behavior therapy" OR "cognitive restructuring" OR CBT) AND ("depressive symptoms" OR depression OR "mental health problem*") AND ("intellectual disabilit*" OR ID OR "developmental disabilit*") AND (youth OR adolescen* OR teen* OR "young people" OR "young adult*")

2.4 Search Strategy

Search terms encompass terms that define Population, Intervention, Comparison group, and Outcomes based on the PICO framework. Additionally, due to the few number of literature related to the aim of this paper free-text keywords strategy was selected to retrieve the most recent literature that might not have been indexed with MeSH terms. Moreover, some of the

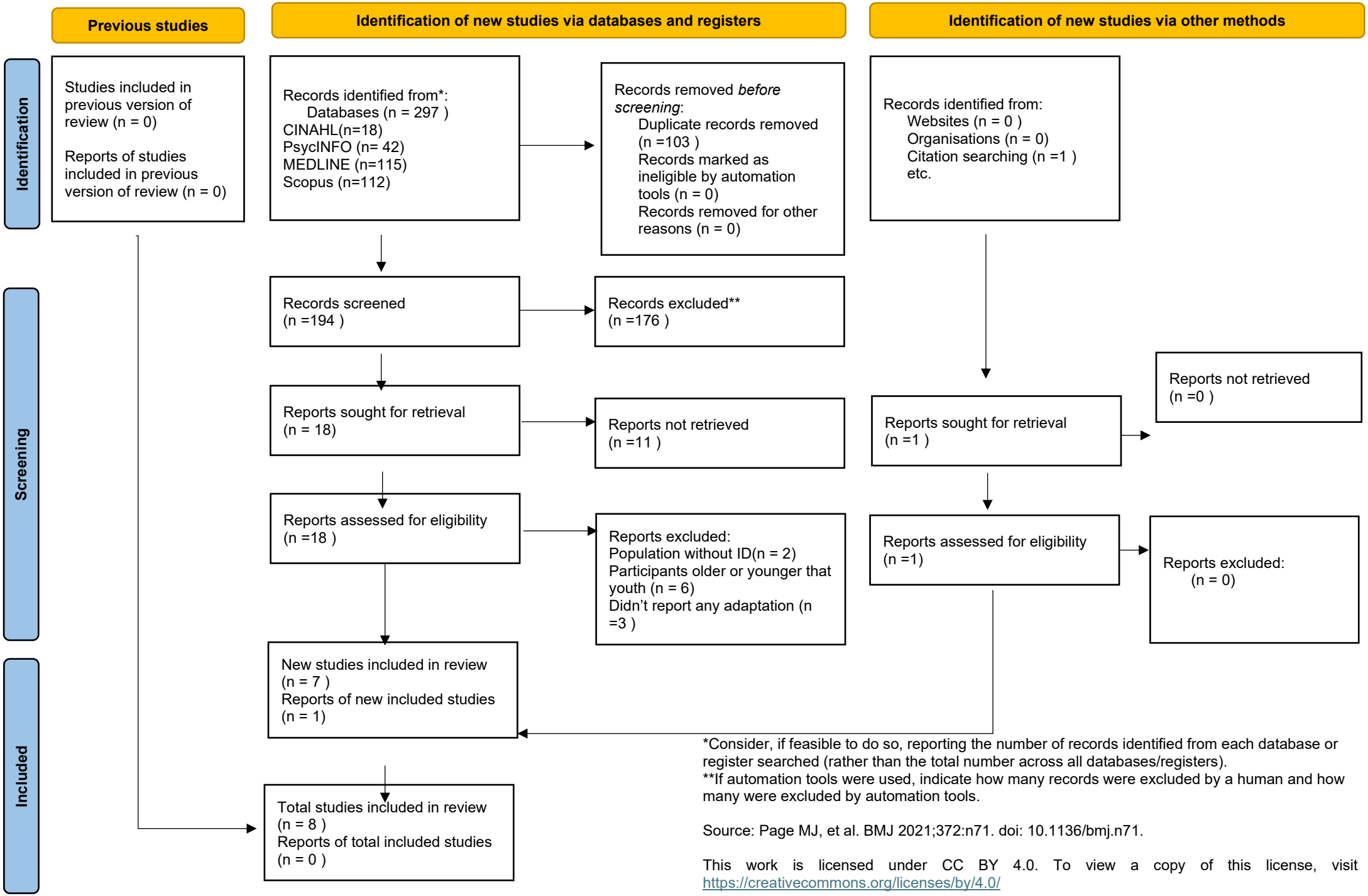
keywords were selected based on MeSH terms to guarantee that hits are the most relevant documents to the topic of this paper, even if the authors used a different terminology. Also, Boolean operators, including “AND” and “OR,” were used to increase the number of relevant search results. The results were limited to the documents from the last 10 years that are in the English language. All records were exported from databases and imported into the Ryyan website to remove duplicate documents and systematically review the titles and abstracts.

2.5 Selection of Sources of Evidence

The author independently screened titles and abstracts of 179 records in four databases by using the Ryyan screening tool. The full-text screening for eligibility criteria was conducted for 18 articles, and 6 articles remained for retrieving information into the extraction protocol. To ensure the reliability of this study, 15 articles were randomly selected (6 included studies and 9 excluded studies), and a second reviewer screened the articles on the Ryyan website for eligibility criteria. The two reviewers had a disagreement about one included article since it did not contain adaptations to the measurement tools; however, adaptations to CBT intervention were reported. After discussion between the two reviewers, both reviewers agreed to include the article in the study, although the authors of that case study did not report adaptations to measurement tools; however, the CBT adaptations were present in the study, which can answer the first research question of this scoping review. The summary of the selection process was reported in the PRISMA-ScR flow diagram.

2.6 Data Charting Process

An adapted Excel file was utilized to collect information from the study. Data extracted from articles include citation, characteristics of the population, IQ level of the population, severity of depression in the population, intervention (CBT), content of the intervention, adaptation to the CBT, measurement tools, adaptation to the measurement tools, and outcomes.



*Consider, if feasible to do so, reporting the number of records identified from each database or register searched (rather than the total number across all databases/registers).
**If automation tools were used, indicate how many records were excluded by a human and how many were excluded by automation tools.

Source: Page MJ, et al. BMJ 2021;372:n71. doi: 10.1136/bmj.n71.

2.7 Synthesis of Results

The primary outcomes of the present study include adaptation to the CBT intervention to meet the special needs of youth with ID and depressive symptoms. Following the guidance presented by Peters et al. (2020) for scoping literature review methodology, findings are summarized in tables and graphical summaries to enhance clarity and demonstrate the literature gaps. The samples and area of adaptation in each type are presented in **Table 1**.

Table 1

Categories of adaptation to CBT Intervention (Hurley et al., 1998)

IN	Category	Definition/Meaning	Applications/Examples
1	Simplification	Reducing complexity to make therapy content more easily understood and retained.	-Present one new technique per session. -Shorter sessions, split into parts with breaks. - Use repetition across sessions to reinforce learning. - Chunk information into small, digestible segments. - Before introducing new concepts, plan for maintenance between sessions.
2	language	To ensure that concepts are accessible to people with intellectual disabilities, the spoken and written language should be adapted by using simple language, short sentences, avoiding jargon, and incorporating visuals to support communication.	- Use shorter sentences and vocabulary, Max 15 words and 3 syllables respectively - In each sentence or exchange, transfer one concept - Use visual aids, social stories, and drawings to support communication. - Be consistent in using materials and terms across and within sessions to ensure a clear understanding of new concepts. - Avoid or carefully explain metaphors and idiomatic expressions. - Actively reflect on and adjust communication strategies as needed.
3	Activities	Using structured, practical tasks instead of purely verbal interactions to engage clients and enhance understanding. These activities involve hands-on participation, making concepts more concrete and easier to grasp.	- Sorting pictures of activities based on what the client enjoys, used to enjoy, or wants to train in the future. - Plan and practice homework tasks together during sessions. Practice new skills by engaging in role-play activities. - Watching demonstration videos of a task before trying it. - Using structured worksheets with visual cues.
4	Developmental level	Tailoring concepts and methods of the therapy to address the individual's developmental and cognitive abilities, including emotion regulation, memory capacity, problem-solving skills, and	- Adjust the pace of therapy to the client's processing speed. - If cognitive strategies are too complex, focus on behavioral strategies. Use simple pictures and stories to teach linking emotions to events and recognizing emotions.

		understanding of social-emotional concepts.	- Instead of abstract concepts, use cognitive rules, like: If X happened, it is better to do Y. Provide clear, step-by-step instructions and verify the client's understanding before proceeding.
5	Directive method	Providing a more structured agenda for therapy sessions than is typical. This includes offering clear frameworks and step-by-step instructions for sessions and therapeutic activities, which will familiarize the client with the therapy process. The structure is created by the therapist, while the client brings the contents.	- Use clear, repeated session structures (e.g., starting with a review, introducing a new task, practicing it, setting homework, reviewing progress). - Actively guide clients through steps rather than leaving them to self-direct. - Use visual agendas that the client can follow and check off. - Focus on the client's concerns while providing structured scaffolding. - Use directive language like "Let's try this together" or "Next, we'll look at..." to keep track of sessions.
6	Flexible method	Being adaptable in therapy, both in terms of therapeutic content and delivery style. If certain approaches are not effective, the therapist adjusts to meet the client's needs, such as shifting between cognitive and behavioral strategies or modifying the session structure to better suit the client's needs.	- If a cognitive approach (e.g., thought challenging) is not working, shift to more behavioral methods (e.g., exposure, behavioral activation). - Adjust activities or materials if they seem confusing or too difficult. - Allow extra time for certain steps or repeat steps as needed. - Be open to changing the session plan if the client is not responding as expected. - Use alternative communication methods (e.g., pictures, role play) if verbal explanations are not effective.
7	Involve caregivers	Involving family members, carers, or support workers in the therapy process to enhance the client's engagement, skill application, and progress outside of sessions. Supporters can help reinforce skills, aid communication, and provide continuity of care.	- Include supporters in sessions to observe and practice skills with the client. - Provide supporters with clear instructions and guides for how to assist between sessions. Clarify roles to prevent supporters from dominating the session or influencing the focus. - Use separate materials for supporters (e.g., handouts, tip sheets) that explain their role. - Address challenges like inconsistent supporters (e.g., due to work shifts) by preparing the client for different scenarios.
8	Transference/ countertransference	Building a strong, positive therapeutic alliance based on shared goals, mutual understanding, and trust. It is important to consider how stigma and clients' previous experiences may affect their comfort and willingness to engage.	- Use shared goal-setting and simple language to clarify roles and expectations. - Celebrate small successes and progress to boost confidence. Be aware of the client's experience with stigma or negative self-perceptions, and create a safe and respectful space. - Use visual or written cues (e.g., session structure charts) to reinforce clarity and reduce anxiety.

			Match the client's communication style and pace to foster a comfortable and trusting relationship.
9	Disability/rehabilitation approaches	Recognizing and addressing the impact of stigma, low self-esteem, and societal attitudes related to intellectual disabilities. Helping clients manage these challenges while focusing on their strengths.	- Explore clients' experiences of discrimination or negative labels in a sensitive and supportive manner. - Focus on the client's strengths and successes to build a positive self-image. - Use affirming, respectful language that avoids reinforcing stigma. - Introduce discussions about disability only if the client is comfortable, and tailor it to their readiness. - Consider including psychoeducation about disability rights and advocacy, if appropriate.

2.8 Critical Appraisal of Individual Sources

According to the aim and methodology of scoping review, quality assessment of included articles in findings is not required (Arksey & O'Malley, 2005; Peters et al., 2020). However, a reflective appraisal of the methodology of the included studies is presented in the discussion of this study. Since some of the articles were pilot or feasibility trials or case studies with small sample sizes, this increases the risk of bias in the findings of the present study and can affect the generalizability of the findings. Researchers and clinicians should include a full risk of bias assessment in future systematic reviews in this topic area to be a complete guide for practitioners' decision-making.

3 Results

3.1 Overview of Included Studies

A total of 8 articles met the inclusion criteria of this scoping review, which were published between 2015 and 2024. These studies addressed the utility of CBT intervention on depression treatment in people with ID, and their special needs in adapting the measurement instruments and CBT program. The studies were conducted across different countries in different continents, encompassing Australia (n = 1), Iran (n = 1), Italy (n = 1), Norway (n = 1), the Netherlands (n = 1), the United Arab Emirates (n = 1), and the USA (n = 2). This distribution demonstrates the diversity of settings from the western counties' healthcare system to the Middle Eastern context that addresses the concern of adaptation to CBT for youth and young adults with ID.

The included studies employed CBT interventions with various study designs, comprising three randomised controlled trials (RCTs), two of which were study protocols, two case studies, and three pilot trials. The sample size varied between one participant in a single-case

study and 780 participants in a protocol RCT. All studies focused on adolescents and youth, mostly between 12 and 24 years old, which aligns with the core age of the targeted group in this scoping review (youth between the ages of 15 and 24).

A variety of CBT interventions were conducted, encompassing a group-based CBT program, a Web-based CBT program (Healthy Mind), a group or individual adapted CBT program (Facing your Fears), and a combined neuropsychological and CBT program (Corp-osa-Mente). These studies reported adaptations tailored to the developmental and intellectual needs of people with ID during CBT intervention and depression measurement. The following sessions provide a detailed synthesis of CBT adaptations and outcome measurement tools, presenting the effects reported across the studies. An overview of the general characteristics of articles presented in **Table 2**.

3.2 Result Organized by Research Questions

3.2.1 Adaptation to CBT Intervention

This section synthesizes the adaptations made to the CBT program to meet the special needs of adolescents and youth with ID and depression. The adaptations are categorized based on Hurley's framework into nine types of adaptations, including simplifications, language, activities, developmental level, directive approach, flexibility, context/involvement of supporters, transference/countertransference, and disability/rehabilitation approach (Hurley et al., 1998). **Table 3** demonstrates the presence or absence of a given adaptation of nine types of adaptation in each included article.

Across the eight included articles, all of them reported simplification, language adaptation, and developmental level modification to the CBT program to address the needs of youth and adolescents with intellectual disabilities (ID). These three types of adaptations are present 100% across all included studies, which demonstrates they have pivotal clinical adaptations in delivering CBT interventions to adolescents and youth with ID. These adaptations are more frequent, more likely they be straightforward to adopt, do not require specific training, and can be implemented in both individual and group CBT interventions.

Whereas, Transference/countertransference and disability/rehabilitation approaches are two types of adaptations that are rarely reported across the eight included studies. Only two studies reported these two types of adjustment, which might be because of the need for more therapeutic skills to address a deeper therapist-client relationship, societal stigma, or trauma-informed care.

Table 2

Overview of the general characteristics of the included articles

IN	Author, Year	Country	Study Design	Population Description (IQ level and Depression Severity)	Sample Size	Age Range	CBT Type/Program
1	Alilou et al., 2024	Iran	Single-subject experimental design with multiple baselines across	Two students with borderline ID and a depression diagnosis	N = 2	21 - 22 years old	Behavioral Activation Therapy (CBT individual intervention)
2	Baldwin et al., 2021	Australia	RCT protocol, Two-arm, single-blind, parallel-group design	Participants must have a diagnosis of borderline-to-mild intellectual ID, and must report a mild to moderate depression or/and anxiety symptoms	Target N= 250	16 years and older; no upper age limit specified.	Healthy Mind, A web-based CBT program, adapted for people with ID.
3	Berg et al., 2024	USA	RCT	youth had a diagnosis of ID and/or IDD, and depressive symptoms were assessed	N = 780	13–20 years old	TEAMS (Teens Achieving Mastery over Stress) within the B.E.S.T. (Behavioral Health Stratified Treatment) program; (group or individual CBT, adapted)
4	Blakeley-Smith et al., 2021	USA	Pilot and feasibility study, pre-post single-group intervention design	Adolescents diagnosed with ID based on DSM-5, with IQ and adaptive behavior testing, and anxiety diagnosis; depressive symptoms were assessed	N = 23 N = 19 completed treatment	12–19 years (Mean = 15.9)	Facing Your Fears, a manualized group CBT program
5	Fjermestad et al., 2015	Norway	Descriptive feasibility study	Adolescents with 22q11.2 Deletion Syndrome, also known as	N = 12	12–17 years (Mean age:	No formal manual name; (CBT group intervention)

			/pilot group intervention study	DiGeorge Syndrome, had intellectual functioning in a lower borderline range, 50% of participants had depressive symptoms, with no clinical diagnosis		14.5 years, SD = 1.4)	
6	Montanaro et al., 2024	Italy	Pre-post design/feasibility pilot trial with a single group	Participants diagnosed with fragile X syndrome; 4 with mild, 2 with moderate, and 4 with severe intellectual disability; all had a diagnosis of depression	N=10	19.0 to 32.8 years (5 out of 10 participants were within your 15–24 range)	CoM II (Corp-osa-Mente), A combined neuropsychological and cognitive-behavioral group therapy
7	Shadan et al., 2021	United Arab Emirates	Single case study	Participants had a diagnosis of Down Syndrome and ID, and a diagnosis of major depression	N = 1	12 years old	Behavioral Activation (BA), a structured, evidence-based component of CBT
8	Weeland et al., 2015	The Netherlands	RCT protocol	Adolescents with and without mild intellectual disability, IQ between 50 and 85, all presented with depressive symptoms without requiring a clinical diagnosis	Targeted N = 240	12 to 16 years	Op Volle Kracht (OVK), a group-based CBT program

Note. FXS Fragile X Syndrome; IN Identification Number of the Studies; ID Intellectual Disability; CBT Cognitive Behavioral Therapy; IDD Intellectual Developmental Disability; RCT Randomized Controlled Trial; IQ *Intelligence Quotient.*

Table 3

Adaptations are made to the CBT program

IN	First author, year	Adaptations
1	Alilou et al., 2024	The duration of sessions varied from 1 h to 1 h and 30 min[1] At the beginning of the treatment, sessions were held twice a week; however, as the final sessions approached, they were held once a week. [1] Images were simplified, and other images were added to the treatment sessions, to make it easier for students to understand [1, 3] The concepts and guidelines were simplified for use in individuals with borderline intellectual disability [1,4] Second case study treatment sessions were online by using video calls on WhatsApp [Adaptation to delivery]
2	Baldwin et al., 2021	Simplified language and design of the web program [2] Each activity is presented in easy-read English [2] Sessions have a specific and concrete step-by-step procedure [5] Using a brief video tutorial demonstration, what does look like a skill or behavior [3] The program is designed based on the client feedback and values [6,8]
3	Berg et al., 2024	Simpler, more concrete language [2] Incorporation of relevant examples that pertain to the IDD experience [4] Visual cues/pictorial representations (e.g., SymbolStix) to aid comprehension [2,3] Use of interactive software to support engagement and learning [3] Repetition of concepts through different modalities during intervention delivery [1, 4, 5] Augmentation of intervention delivery with applied learning activities, group format [3] The individualized CBT model is offered as an adaptation for youth unable to participate in a group context [6] Caregiver support through participation in informational sessions and Engagement with youth with between-session work [7]
4	Blakeley-Smith et al., 2021	Two sets of adaptations were made with differentiation for varying expressive language abilities [2] Visual structure and supports, incorporation of child-specific interests [3, 5] Repetition of new skills [1, 5]

		Hands-on activities to learn anxiety management [3] Video modelling for learning new activities [3] High frequency reinforcement of brave behaviour and tailored supports for problem behaviour [9] All CBT components were introduced with accompanying visual structures [1, 4] A visual menu of strategies such as deep breathing and sensory regulation techniques [1,3,4] Giving rewards for brave behaviour [9] Exposures were conducted on a variety of fears based on each teen's anxiety symptoms and family goals [8]
5	Fjermestad et al., 2015	Use of simple language, limited written material, use of specific examples more than general ideas [1,2] Limited use of writing exercises [2, 4] Apply frequent breaks, plan short sessions [1] Frequent repetition of main points [1] Take time to wait for responses, use very clear and explicit turn-taking in groups [4] More time for "getting to know each other" – activities, use very clear and explicit turn-taking in groups [4]
6	Montanaro et al., 2024	Material was adapted to each participant's cognitive level [4]
7	Weeland et al., 2015	The program was shortened from 16 to 8 sessions of 45 min [1] The program contains fewer verbal and more practical and visual elements (e.g., pictograms, video clips) [1, 3, 4] The text and layout of treatment materials were simplified [1, 2] Efforts were made to optimize generalizability to daily life (e.g., use of a personal implementation plan, inclusion of parents and supervisors in homework exercises, and more attention to personal experiences of youth) [7, 8] Adolescents receive more support from social workers (e.g., help in homework, help in detecting inaccurate thoughts and challenging their thoughts) [7] The trained skills are taught through smaller sub-step techniques that require higher-order thinking. [1, 5] Cognitive reasoning (e.g., reasoning about a hypothetical situation; reasoning about other people's thoughts) is eliminated and replaced by more concrete and behaviour-oriented techniques [4]

Note. IN: Identification Number of the Studies; Category of adaptations: Simplification [1], language [2], Activities[3], Developmental level[4], Directive method[5], flexible method[6], Involve caregivers[7], Transference/countertransference[8], Disability/rehabilitation approaches[9].

Interestingly, four studies out of eight reported caregivers' involvement adaptations, which is a moderately frequent type among the nine types of adaptations in the mentioned category. Suggesting that microsystem plays a crucial and variable role in different CBT interventions.

Ultimately, this pattern demonstrates a conflict between practical feasibility and clinical complications. Some adjustments, including simplification, using visual aids, are more accessible and easier to apply to CBt interventions, while some relational, abstract, and right-based strategies are less accessible and remain undervalued contrary to their long-term influence.

3.2.2 Adaptation to Measurement Tools

This section reports on the outcome measurement tools and their adaptations, as well as their appropriateness in measuring the outcomes of the CBT intervention for adolescents and youth. A summary of adaptations reported across studies is reported in **Table 4.** Out of eight included studies, three of them utilized self-reported outcome measurement instruments (studies 1,2 and 3), one of them reported both caregiver and self-reported measurement instruments (study 8) and four of them reported proxy-report instruments (studies 4, 5 and 6).

The most frequent adaptations were applied to content and administration procedure, whereas less frequent adjustments were conducted to the layout. This indicates sophisticated items that need support in the delivery of questionnaires and measurement tools, and less attention to visual formatting. A clear pattern can be seen in verbal administration and simplification of content (e.g., reading aloud, using two options or yes/no responses), that these types of adaptations are more practical in clinical settings. Moreover, involvement of trained researchers, therapists, and caregivers is comment that shows the importance of social support during the mental health assessment in the targeted population.

In contrast, formal adjustments and modifications to layout are less frequent and were observed in a few studies. This may depict limited accessibility to validate me as urment tools normed for youth with ID.

Table 4

Adaptations are made to the outcomes measurement tools

IN	First author, Year	Instruments	Adaptation to content [C], layout[L], or Adminsration procedure [A]	People involved in the adaptation
1	Alilou et al., 2024	BDI-II; BAI; OHI (Self-report)	A simplified version is used, with terms clarified for intellectual accessibility. [C]	Researchers and therapists familiar with ID
			Adapted language to the context in which participants live. [C]	Developers of the Persian version, used by the authors
			Questions were read aloud and explained in simplified language during administration; participants chose responses verbally or with support [A]	Study therapists
		RSES (Self-report)	Unlike the original version, which had four choices, the Persian version has only two choices: agree and disagree. [C]	Researcher
			Reading aloud and explaining to participants. [A]	Therapists and researchers
2	Baldwin et al., 2021	ADAMS; Kessler-10 (K10);WHO-DAS 2.0 (Self-report)	Delivered online with support from a nominated carer/helper if needed [A]	Participant + carer
			Purpose-built for individuals with intellectual disability (ID); no modification needed	
3	Berg et al., 2024	PHQ-8 (Informant-report)	Simplified to a 4th-grade reading level [C]	With the support of clinical psychologists
			Delivered via an interviewer-led format to support comprehension [A]	
		MINI-KID (self-report)	Language adapted for developmental appropriateness [C]	Administered by clinical psychologists
			Administered as a semi-structured clinical interview [A]	
		PHQ-A (self-report)		
		GAD-7		

4	Blakeley-Smith et al., 2021	ADAMS (caregivers-report); SCARED-P (parent version)	Completed by caregivers; designed for indirect assessment due to communication/cognitive barriers in participants [A] No item-level modification; chosen for its utility in structured parent-report	Caregivers, supported by research staff
5	Fjermestad et al., 2015	Kiddie-SADS (Parents-report)	Tools were administered with a semi-structured phone call interview with parents. [A]	Semi-structured interview with parents conducted by clinical psychologists
		CBCL (Parents-report)	Parents completed it independently or with researcher assistance [A]	A clinical psychologist conducted the interview
6	Montanaro et al., 2024	CBCL 6–18 (parents-report)	Parents filled out the questionnaire due to the difficulties participants experienced with communication.[A]	Administered by researchers and filled by parents
		BRIEF-2 (Parents-report)	parent-reported; supported by trained staff where needed[A] Used as-is, but adapted for mental age-based interpretation [C]	
		ABAS II (Parents/caregiver report)	Unlike scored using USA norms for 0_85 years old, the Italian version norms only go up to age 18 [C] Content interpreted relative to mental age (MA) rather than chronological age (CA) for more meaningful analysis [C]	
		CCC-2	Italian standardization provides data for children aged 4-11 years old [C]. Administered with mental-age corrections using Italian norms (age 4–11) [A] Used to screen pragmatic and non-verbal communication; no content modification, but applied to MA norms [L]	Speech-language therapist and psychologist
		PedsQL	Completed by mothers of participants; no direct interaction with participants [A]	Mothers of participants, supported by the therapist for clarification

7	Shadan et al., 2021	MFQ; SCARED (parents-report)	Both tools were administered indirectly via parents, which is appropriate for children with intellectual disabilities[A]	Parents
8	Weeland et al., 2015	CDI-2;SCAS (parents ' report and self-report)	For youth with MID, questionnaires were administered with support from trained research assistants, who helped interpret and explain questions [A] No item-level modification; selected due to previous evidence of reliability in youth with MID	Researcher assistants
		SDQ; PGCI (Self and parent-report)	MID participants received support in understanding/answering questions [A]	

Note. Administration procedure: The procedure that the client and administrator follow to fill self-report Content: the meaning of each item; Layout: The order of pictures, words, and response options in the self-report instruments (Kramer & Schwartz, 2017).
ABAS II = Adaptive Behavior Assessment System; ADAMS = Anxiety, Depression, and Mood Scale; BAI = Beck Anxiety Inventory; BDI-II = Beck Depression Inventory-Second Edition; BRIEF-2 = Behavior Rating Inventory of Executive Function; CBCL = Child Behavior Checklist; CCC-2 = Children's Communication Checklist–Second Edition; CDI-2 = Children's Depression Inventory–Second Edition; GAD-7 = Generalized Anxiety Disorder-7; Kiddie-SADS = Schedule for Affective Disorders and Schizophrenia for School-Age Children; MFQ = Mood and Feelings Questionnaire; MINI-KID = Mini International Neuropsychiatric Interview for Children and Adolescents; OHI = Oxford Happiness Inventory; PedsQL = Pediatric Quality of Life Inventory Family Impact Module; PGCI= Prison Group Climate Inventory; RSES= Rosenberg Self-Esteem Scale ; SCARED = Screen for Child Anxiety Related Disorders; SCARED-P = Screen for Child Anxiety Related Emotional Disorders–Parent version; SCAS = Spence Children's Anxiety Scale; SDQ = Strengths and Difficulties Questionnaire.

Discussion

4.1 Reflection of the Findings

This scoping review aimed to investigate the existing scientific articles on adaptations of CBT interventions to the needs of adolescents and youth with ID who have depressive symptoms. Notably, the study addressed the research questions: (1) What adaptations are made to the strategies used for cognitive behavioral therapy (CBT) for depression to improve mental health or reduce mental health problems to suit adolescents and young adults with ID? (2) What type of adaptations are made to the measurement instruments to assess outcomes? (3) What are the outcomes of adapted CBT interventions and therapy effects on the mental health of adolescents and young people with ID, who have symptoms of depression?
A total of eight studies were included in this study, which were conducted in various geographical locations on different continents. These variations demonstrate that although the number of articles and frequency of trials in this topic is limited, practitioners and researchers in continents including America, Australia, Asia, and Europe addressed this concern and responded to the special needs of adolescents and youth with ID who experience depression. Moreover, included studies varied in design, comprising RCTs, case studies, study protocols, and pilot studies. This diversity in methodology and study design indicates both preliminary explorations and more robust trials to address the adaptation of CBT for depression treatment in youth with ID.

In some studies, although the age range of several participants was lower than the inclusion criteria of this scoping review (Berg et al., 2024; Blakeley-Smith et al., 2021; Fjermestad et al., 2015; Shadan et al., 2021; Weeland et al., 2015), they are included in the study, since the number of studies on this topic, particularly for the youth age range, is limited. Two of the studies have participants on the borderline of ID (Alilou et al., 2024; Weeland et al., 2015); they are included in this study, since there is some evidence that proves people with lower IQ scores outside of ID experience similar difficulties in executive functioning with people with ID (Dagnan et al., 2023). Moreover, one of the included studies that was primarily conducted for anxiety treatment (Blakeley-Smith et al., 2021) was selected, since the authors also reported depression level as an outcome. In the next session, the adaptations to the CBT interventions mentioned in the studies listed in Table 2 will be discussed.

4.2 Adaptations to CBT Intervention

This review investigates the variety and frequency of adaptations that were made to the CBT interventions for adolescents and youth with ID and depressive symptoms. To categorize the

CBT intervention adaptations, a framework developed by Hurley et al. (1998) was utilized. The three most frequent types of adaptations were simplification, activities, and developmental level, which appeared across all studies. These modifications ensure the accessibility of the content and delivery of CBT interventions to the targeted population of this study.

Simplification strategies for adaptations that most studies reported included holding shorter therapy sessions, repeating new concepts taught to students, and using visual aids and materials to enhance students' understanding of new concepts. The second type of adaptation that was frequently reported across included studies is activities. Adaptation to activities comprises utilizing video tutorials and modelling for teaching new skills. Adaptations reported in the developmental level category involve using behavioral and practical methods when difficulties arise in cognitive abilities. Similar to this scoping review, a systematic review conducted by Surley and Dagnan (2019) reported that simplification and activities were the most common adaptations in their review.

However, they reported that the two categories, including Transference/ countertransference and Disability/rehabilitation approaches, were not reported across the studies included in their systematic review. Notably, across the studies included in the present scoping review, these two types of adaptation have been observed less frequently, and both have been reported only twice. Across the included studies in this review, transference/countertransference adaptations involve setting goals based on the participant's previous experience and the family’s interests. Disability and rehabilitation approaches to adaptation include reinforcement for brave behavior and offering rewards for courageous actions. However, the study that reported this type of adaptation is a CBT program for anxiety treatment (Blakeley-Smith et al., 2021) that is included in this study since it reported depression as a secondary outcome of the CBT intervention.

It is noticeable that none of the included studies reported negative stigma that youth with IDs have about their difference with typically developed people and disablism. It is likely that authors paid attention to this importance and did not report, or might not address this importance. However, one way to consider advocacy and the voice of youth with intellectual disability is to address the negative stigma that they experience and that interferes with their ability to set goals in CBT intervention that are under categories 8 and 9 of the adaptations framework.

4.3 Adaptation of Outcomes Measurement Tools

This study investigates the adaptations made to the outcomes measurement instruments in the CBT intervention for adolescents and youth with ID and depressive symptoms. Across eight studies, 26 measurement instruments were reported. Four studies used only proxy-report measurement tools (Shadan et al., 2021; Montanaro et al., 2024; Fjermestad et al., 2015; Blakeley-Smith et al., 2021). Authors explained that, due to the low level of cognitive ability in youth with ID, they used informant-report measurement tools. However, the use of proxy-report measurement tools may not provide a reliable representation of the internal experience of individuals with ID, as Mileviciute and Hartley (2015) demonstrate that adults with ID reported higher experiences of affective and cognitive symptoms than their informants. Similarly, in another study, Scott & Havercamp (2018) reported that there is poor agreement between people with ID and their informants in reporting stress, that is, an internal status of mental health. Hence, researchers and clinicians need to exercise greater caution when interpreting data from informant-report measurement tools (Mileviciute & Hartley, 2015).

Two articles used both self-report and informant-report measurement instruments (Berg et al., 2024; Weeland et al., 2015). As Mileviciute and Hartley (2015) discussed, a better choice for depression measurement in people with ID is the use of both proxy-report and self-report measurement tools; so, it can give a comprehensive view of the status of patients' depression to health care providers. However, due to the small number of studies that use self-report measurement instruments, the number of valid measurement instruments for depression assessment among youth with ID might be limited. However, those instruments that were designed for measuring depression or other mental health status in typically developed youth need to be adapted for youth with ID.

Two studies out of eight used only self-report measurement tools (Alilou et al., 2024; Baldwin et al., 2021), encompassing a total of seven self-report measurement instruments. Adaptations were made in three aspects, including content, layer, and administration procedure. Across these seven self-report measurement instruments, there were five content adaptations and five adaptations to the administration procedure. Content adaptations include simplifying language, adjusting the number of choices, and tailoring language to the participant's context and developmental level. Moreover, adaptations in the administration procedure involve reading the questions aloud for participants and delivering the questionnaire through a semi-structured interview. Moreover, no adaptation was reported for the layout, which is more likely because researchers or clinicians do not typically report it, as

they explained that these self-reported questionnaires have internal consistency for people with intellectual disabilities.

Ultimately, the adaptations made to the outcome measurement tools are similar to some types of adaptations to CBT interventions, as outlined in the Hurley framework. The adaptations in Hurley et al. (1998) categories, including simplification, language, and developmental level, are similar to adaptations to content. Adaptations, such as activities, flexibility, and caregiver support, are similar to adaptations to administrative procedure.

4.4Theoretical Reflection

The study aims to investigate adaptations that were made to the CBT intervention and outcomes measurement instruments in the treatment of depression in youth with disabilities. Regarding system theory (PPCT model), adaptations to the CBT program and measurement tools were made through interaction between youth with ID and their immediate or extended environment in different contexts over different time systems.

4.4.1 Proximal process

Adaptations to CBT through interaction between youth with ID and their immediate environment (microsystem) are proximal processes that affect youth development (Rosa & Tudge, 2013). For instance, the strategies that psychologists apply, including simplification of new concepts and using simple language to communicate with youth with ID, are proximal processes that affect youth development. Moreover, the role play activities in the group CBT therapy, and caregivers' support to practicing tasks and homework outside the therapy sessions are also proximal process that occurs in different settings in the microsystem.

4.4.2 Person

Regarding person characteristics, the resource characteristics of youth with ID and depression can hinder their outcomes (Rosa & Tudge, 2013). So, adaptations in intellectual level (Type 4 Hurley's framework of adaptation) might facilitate the youth outcomes and their depression treatment.

4.4.3 Context

The PPCT model explains the different environmental systems (Context) that facilitate/ hinder a person's development (Rosa & Tudge, 2013). Some of the adaptations occur in the most immediate environment (Microsystem) of the youth with ID in the CBT program. Some adaptations in proximal processes are happening in the microsystem that help to improve developmental outcomes through CBT interventions. In the Mesosystem, adaptations occur because of the interaction of different settings of the microsystem. As an example, caregivers' support on depression assessment through proxy-report questionnaire, which is an interaction

between clinicians and caregivers in the young adult, is not necessarily present. In the exosystem, settings including healthcare providers and researchers in the CBT interventions field can affect young adult development indirectly (Rosa & Tudge, 2013). For instance, the plan for duration therapy sessions, designing adaptations through researchers and psychologists, and making a structure for therapy sessions are all adaptations that happen in the ecosystem, aiming to utilize CBT for depression treatment. In the Macrosystem, the stigma associated with disability can be a barrier to a person's development, which, through CBT adaptation, in a way, points out the strength of the young person, which can facilitate the treatment process.

4.4.4Time

In the chronosystem, in the PPCT model, time is divided into three different levels, including micro, exo, and macro time (Rosa & Tudge, 2013). According to this model, CBT adaptations can be done based on what the young adult experienced, and also what is designed for them during the treatment period, aiming to tailor the CBT treatment to their special need caused by ID.

The findings of this study are similar to a systematic review and meta-analysis conducted by Tapp et al. (2023), which emphasized adaptations including simplification, involvement of caregivers, and using visual aids in psychological interventions for people with ID. However, this scoping review focuses on a specific age range that is transitioning from childhood to adulthood to map how adaptation needs are different in this transition age (15-24) among youth with ID.

Similarly, another systematic review highlighted that although CBT intervention is a promising treatment for depression in people with ID, few studies systematically reported the adaptations that applied to CBT intervention to meet the special needs of youth with ID (Cameron et al., 2021). This scoping review was built based on their findings to provide a systematic mapping of CBT and measurement tools adaptations to explore how these adjustments meet the individual, contextual, and developmental factors that are neglected in the implementation of CBT intervention.

4.5 Ethical Considerations

This scoping review investigated and synthesized the existing scientific articles on Cognitive Behavioral Therapy for youth with intellectual disability and depressive symptoms. Since it did not collect new data from human participants, it does not require ethical approval. However, the review was conducted with the help of the PRISMA guideline to ensure

transparency and replicability. Based on the eligibility criteria, studies were systematically identified, screened, selected, and data extracted.

4.6 Limitations

One of the potential biases, including reliance on English-language publications and available sources, was considered, and efforts were made to conduct comprehensive research aiming to minimize these limitations. Another limitation of this study is excluding gray literature due to limited time that can increase the risk of bias.

4.7 Future Research

For future research in this area, it is suggested that to adapt Cognitive Behavioral Therapy for youth with intellectual disability and depressive symptoms, researchers report adaptations on CBT and outcomes measurement tools more systematically. Moreover, to have a comprehensive view of the internal status of a young adult, such as depression, the use of adapted self-report outcome measurement tools and informant report measurement tools is suggested.

5 Conclusion

This study investigates the adaptation of Cognitive Behavioral Therapy for youth with intellectual disability and depressive symptoms. Across the eight included studies, the most frequent CBT adaptations were simplification, adapted language, and adaptation to the developmental level. Moreover, the least frequent adaptations were under the categories of countertransference and rehabilitation approaches. This demonstrates that there is a gap in the literature on how researchers, psychologists, and clinicians address the adaptations in these two categories.

Regarding the outcome measurement instruments, four studies out of eight reported proxy-report measurement tools, two articles reported only self-report, and two studies reported both proxy-report and self-report measurement tools. Additionally, only one instrument had adaptations to the layout that were proxy-report. It can be concluded to be able to have a comprehensive assessment of the internal status of youth with ID, and utilise both proxy and self-report measurement tools, researchers should address the need to adapt self-report measurement tools in all three categories, including adaptation to content, layout, and administration procedure.

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