Exploring Occupational Therapy Opportunities for Children with Adverse Childhood Experiences

Scoping Review

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Abstract

Introduction: Adverse childhood experiences (ACEs) affect roughly 64% of Americans and are linked to negative outcomes, including higher risks of substance abuse and criminal justice involvement. Occupational therapy practitioners (OTPs) can support children impacted by ACEs to enhance quality of life (QoL) and well-being. However, evidence for effective occupational therapy (OT) interventions in this population remains limited and often vague. The scoping review investigates: what OT interventions are used to improve QoL and well-being for children 3-17 years old who have experienced one or more ACEs?

Methods A scoping review was conducted following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) guidelines, searching APA PsycINFO, MEDLINE, CINAHL, Psychology & Behavioral Sciences, Health Source, and SocINDEX. Included studies were in English, focused on children with 1 or more ACEs, involved OT in interprofessional care, and described specified interventions. Articles lacking intervention details or focusing on medication, academics, or non-OT professions were excluded. Relevant articles were reviewed, and a thematic analysis was conducted to synthesize data.

Results: Of 978 articles retrieved, 613 were screened, 16 underwent full-text review, and nine met inclusion criteria. Through thematic analysis, common interventions included self-regulation (n=8), sensory interventions (n=7), therapeutic use of self (TUoS) (n=7), play (n=6), and social participation and relationships (n=8). Other interventions addressed ADLs (n=3), leisure (n=3), IADLs (n=2), cognition (n=1), and others (n=2). Overall, OT interventions correlated with a positive impact on QoL and overall well-being (n=7).

Conclusions: Occupational therapy interventions emphasizing self-regulation, social participation, and positive TUoS support QoL and wellbeing in children affected by ACEs, potentially mitigating risks for negative life outcomes. OTPs should further examine the specificity of interventions to better inform practice, with increased emphasis on early identification and timely intervention.

Key Words: Childhood trauma, Occupational Therapy Practitioners, Trauma Informed

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Introduction

Adverse childhood experiences (ACEs) are "potentially traumatic events that occur in childhood." [1] ACEs can include various forms of physical, emotional, and mental abuse or neglect as well as household dysfunction such as exposure to substance misuse, domestic violence, or incarceration of a family member. Approximately 64% of American adults

report experiencing at least one or more ACE before the age of 18, while 1 in 6 report four or more ACEs.[1] As the number of ACEs for an individual increases, there is a higher risk of negative life outcomes due to poor health, lack of well-being, or limited opportunities that persist into adulthood. Understanding the prevalence and impact of ACEs provides important context for examining their influence on child development and long-term outcomes.

The cumulative effect of ACEs has been well documented. Children who have ACEs are more likely to experience negative consequences such as delayed development, impacted physiological functions, decreased self-regulation, impaired social participation or disrupted social relationships.[1, 4-8] These early disruptions often contribute to mental, physical, or behavioral difficulties throughout life. People who experience ACEs are more likely to experience mental health complications such as depression, anxiety, and suicidal ideation.[1, 4, 9-10] Physical challenges to health may include a higher risk for developing chronic conditions, such as diabetes, obesity, heart disease, cancer, sexually transmitted diseases, stroke, broken bones, or other conditions.[1, 4, 9-10] Additionally, behavioral risk outcomes such as involvement with the criminal justice systems and challenges maintaining employment further emphasize the lifelong impact of ACEs.[1, 4, 9-10] The extent and persistence of these outcomes emphasize the importance of proactive efforts to mitigate risk and promote resilience across the lifespan.

ACEs can cause dysregulation to a child's stress response. When a child experiences an ACE, their sympathetic nervous system is triggered with arousal of a "flight, fight, freeze or fawn" response.[2] This repeated activation can result in a prolonged state of heightened stress, making it difficult for the body to return to a regulated state. This interferes with the function of the neural networks responsible for executive functioning (i.e. memory, logical thought), inhibition, and emotional processing. These disruptions may alter how children perceive and respond to environmental stimuli, often leading to heightened sensitivity or reactivity. As a result, children may experience difficulties with self-regulation, attention, sensory processing, and social participation in daily routines, which can impact decision-making and persist into adulthood. [3]

Occupational therapy (OT) is a "client-centered health profession concerned with promoting health and well-being through occupation."[11] Occupational therapy practitioners (OTPs) are uniquely positioned to address the multifaceted effects of ACEs by implementing prevention-focused strategies, coping skills training, education, and targeted interventions that promote positive life outcomes.[12] At the core of this holistic approach is engagement in meaningful occupations, which is intended to promote improvements in QoL and overall well-being. According to the American Occupational Therapy Association (AOTA), QoL is defined as the "dynamic appraisal of the client's life satisfaction, hope, self-concept, and health and functioning…," while well-being is defined as "contentment with one's health, self-esteem, sense of belonging, security, and opportunities for self-determination, meaning, roles, and helping others…"[12] While OT frameworks emphasize QoL and well-being, there is a lack of clearly defined and consistently reported OT-specific interventions for children with ACEs, as existing literature often embeds these approaches within broader interdisciplinary models, like trauma-responsive care. This gap limits understanding of the distinct contributions of OT in this population. Therefore, this scoping review aimed to map the existing literature and identify gaps in OT-specific intervention approaches, specifically addressing the research question: What occupational therapy interventions are used to improve quality of life and well-being in children aged 3–17 years who have experienced one or more adverse childhood experiences (ACEs)?

Methods

The scoping review was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR).[13] The review was used to map the literature to identify the range and types of services OTPs are providing and find gaps within the current literature. A protocol was developed and registered on Open Science Framework.[14] To identify potentially relevant documents, a comprehensive search was conducted from spring of 2025. The following databases were searched: APA PsychINFO, MEDLINE, CINAHL, Psychology and Behavioral Sciences Collection, Health Source: Nursing/Academic Edition, and SocINDEX on the EBSCO platform. The search strategies were drafted by the primary author and reviewers, while further refinement was made through trials and team discussions.

The search strategy was developed considering the target population, interventions utilized, and various outcomes related to interventions provided by OTP for a child who has experienced an ACE. Keywords including adverse childhood experiences, ACEs, child, adolescent, youth, occupational therapy, OT, childhood trauma" were utilized for

searches of sources. Expanders to search for similar terms were enabled, and truncations and Boolean operators [AND, OR, NOT] were utilized to refine the search to answer the research question.

To ensure inclusion of most up to date interventions, articles were included in the review if they were published after 2013. Included articles were written or translated into English, focused on children between 3-17 years old who experienced at least one ACE, focused on interventions, and included OT as part of an interprofessional team. Articles that were excluded focused primarily on a profession other than OT, lacked interventions, focused on pharmaceutical interventions, or consisted of school-based interventions. Other exclusion criteria included children younger than 3 years old or older than 18 years old, accidental traumas, or articles with a focus on a specific diagnosis.

All search results were uploaded to Rayyan[15] and duplicates were removed. Three reviewers sequentially evaluated the titles, abstracts, and keywords to determine eligibility. To increase consistency among reviewers, all reviewers screened the same publications independently and discussed the results with any discrepancies between reviewers being discussed until a consensus was reached. Following the title and abstract screening, articles were reviewed in full to assess eligibility for inclusion. Each article was reviewed to ensure they followed the inclusion and exclusion criteria. Sources whose full text was retrievable were read in their entirety to assess eligibility based on predetermined criteria.

A data extraction chart was developed and trialed to extract outcomes from each article. Data characteristics extracted included: study author(s) and year, population, country of origin, context, type of intervention, outcomes, alignment of outcomes with the definitions of QoL and well-being, the type of ACE, and how the intervention falls within the OT scope of practice. The type of intervention incorporated strategies and approaches used by healthcare professionals to help combat the impact of ACEs. Outcomes were analyzed to assess their alignment with constructs of QoL and well-being as defined in the *Occupational Therapy Practice Framework 4th Edition* (OTPF-4),[12] which helps define occupational therapy and provides a framework for the profession. The type of ACE, if identified within the source, consists of physical, emotional, and mental neglect, abuse, and household dysfunction. The OT scope of practice indicates how the intervention and outcomes fall within the OTPF-4.[12] Interventions from the data extraction chart were analyzed and categorized into themes aligned with the OTPF-4.[12]

Results

The PRISMA-ScR chart in Figure 1 shows the included articles that were analyzed to gather evidence for objectives of the scoping review. Using the eligibility criteria, 978 articles were identified from the search related to the research question. After removing 365 duplicates, 613 articles were screened by their title and abstracts, of which 597 were excluded due to not meeting the inclusion criteria. The remaining 16 articles were reviewed by full text, seven articles were excluded due to no OT (n=1), the wrong population (n=2), and no or limited intervention (n=4). Eight studies remained and through citation searching, one additional study was included after assessing eligibility resulting in nine articles included in the final review.

Visual representation of the PRISMA-ScR process that illustrates total number of articles gathered, article exclusions for respective reasons, and the final number of articles included.

The data extraction chart located in Table 1 summarizes the information extracted from each of the nine articles related to the context of the study, intervention provided, provider involvement, type of ACE, outcomes, alignment of outcomes with definitions of QoL and well-being, and alignment within the scope of OT. The types of interventions used within the data extraction chart were then sorted into themes. Across the included studies, outcomes were analyzed related to QoL and well-being from constructs from the definitions such as life satisfaction, hope, self-concept/self-esteem, health and function, security/sense of belonging, and opportunities for self-determination, meaning, roles, and helping others.[12]

Context

Occupational therapy practitioners are providing services across a variety of settings as part of interdisciplinary teams to help prevent the negative life outcomes associated with ACEs. Five of the studies identified OTPs practicing in outpatient environments, such as private practices and behavioral or mental health settings.[5, 16, 19-21] Four articles identified OTP intervention in inpatient contexts, such as hospitals or residential treatment facilities.[5, 16, 19, 22] Additionally, six studies documented OTP engagement in community-based programs, including camps and other social service initiatives.[5, 16-19, 23] Although traditional school-based interventions were excluded, two studies included

utilization of a school environment as part of their participation recruitment.[19, 21] Overall, the findings indicate that OTP services are most frequently delivered in outpatient and community-based settings, with fewer studies reporting inpatient involvement, suggesting a trend toward interventions occurring in less restrictive, more community-embedded contexts.

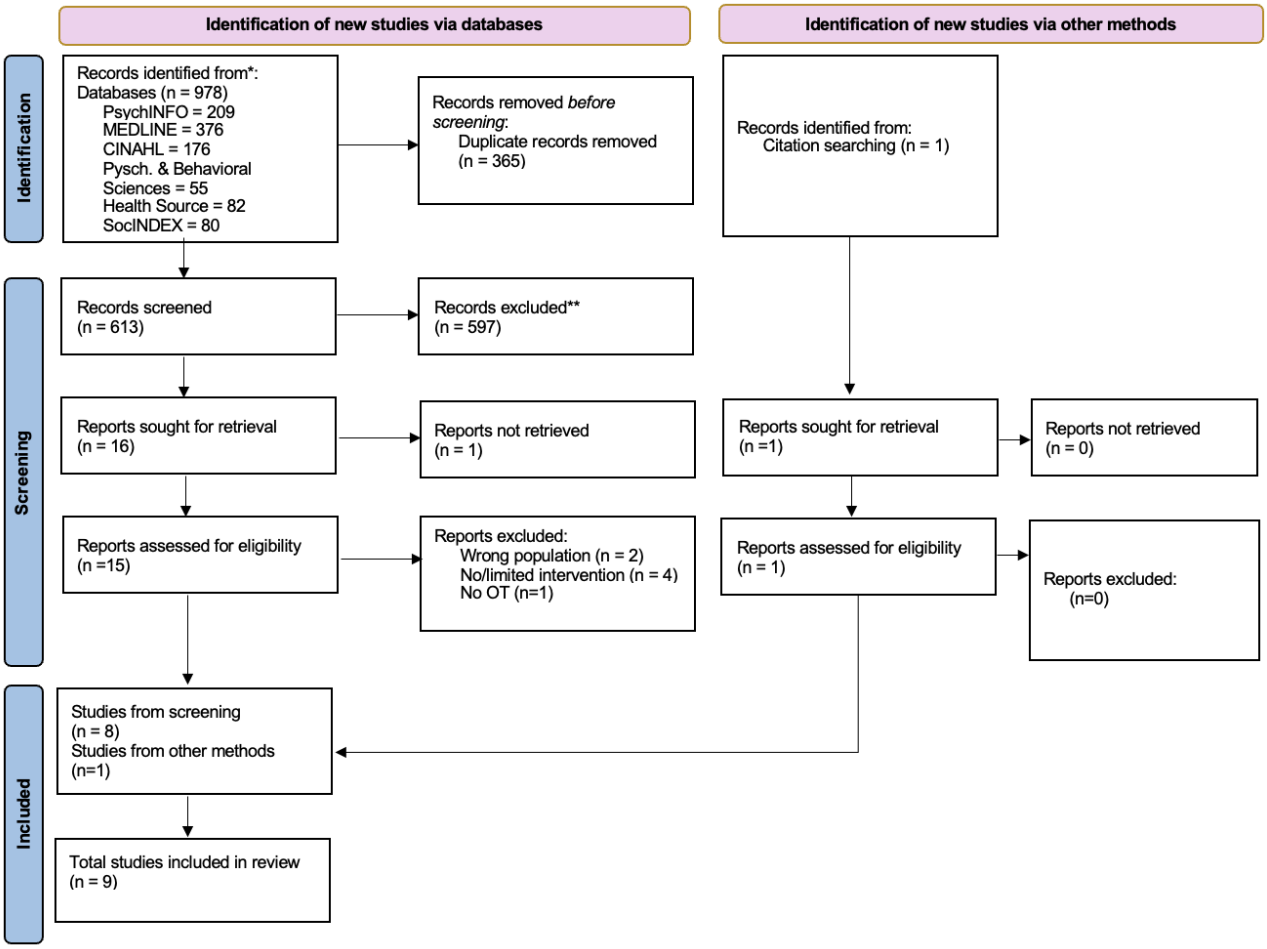

Figure 1. PRISMA flowchart of sources included[13]

Type of Intervention

A thematic analysis of the types of interventions revealed interventions focused on sensory interventions, self-regulation, therapeutic use of self (TUoS), social participation and relationships, play, and other miscellaneous interventions such as ADLs, IADLs, leisure, cognitive, and more. While the review focused on OT-specific approaches, many interventions were influenced by other professions.

Sensory interventions. Sensory interventions were identified in seven of the nine included articles.[5, 16-18, 20-22] While many could be classified under self-regulation, they were categorized based on the primary function provided to the child. Four studies highlighted the use of sensory modulation interventions, such as sensory diets,[5, 16, 18, 22] designated sensory spaces,[5, 16, 22] and individualized sensory toolkits,[5, 18, 22] as common and effective approaches. These interventions were associated with increased attachment behaviors[18] and a reduction in the use of restraints or seclusions.[22] Specific programs, like the Sensorimotor Affect and Relationship-based Therapy (SMART) program,[22] Astronaut training,[5] Wilbarger protocol,[5] and Tomatis ™,[5] were also utilized to improve the child's sense of security and self-regulation.

Table 1. Data extraction table.

Citation	Population	Context	Type of intervention	Professional involvement	Outcomes	Align QoL/Well-Being[12]	Type of ACE	OT Scope[12]

Fraser et al., 2019[5]	9 OTs working with children aged 5-18 y.o. who have experienced complex trauma	• Outpatient
		• Inpatient
		• Community settings
			• Life skills (ADLs)
			• Social skills groups
			• Sensory-based interventions
			  • Astronaut Training, Tomatis ™, therapeutic listening, Wilbarger's tactile integration massage
			  • Sensory diets, sensory rooms, sensory-based toolkits
			• Modifications of environment
			  • Adapted seating, alternative lighting, etc.
			• Self-regulation
			  • ALERT program ™
			  • Safe place model
			• Caregiver involvement
			  • Building trust & rapport (co-regulation)
			  • DIR Floortime ™
			  • Trust-Based Relationship Intervention (TBRI) ™
				• OT
				• Psychology
				• Social Work
				• SLPs
				• Physicians
				• Educators
				• Nursing
				• Case Managers
				• Youth workers
				• Family support workers
					• Improved relationship with caregiver	Yes	• Neglect
							• Physical/sexual abuse
							• Prenatal trauma
							• Adoptions
							• Attachment disruptions
								• Self-regulation
								• Activities
								• Training
								• Well-being
								• QoL
								• Social participation
								• Social interaction skills

Mason & Stagnitti, 2022[16]	25 OTs who have been practicing for a min. of 2 years & worked with children aged 0-12 y.o. who	• Community • Schools • Private practice • Hospitals	• Sensory-based approaches • Sensory modulation (Sensory rooms, sensory diets, sensory modulation	OT	No results to report b/c they are listed as interventions provided by OTs who completed the survey	No	• Complex trauma • Minority-group related trauma	• Process skills • Habits • Environmental factors • Social participation • ADLs

	have experienced complex trauma	• Primary health organizations	programs, & sensory modulation strategies for crisis prevention) • Sensory integration • Crafts & music • Physical movement • Play-based therapy • DIR Floortime ™ • Adapted environments – visuals, alternative environmental options • Client/caregiver education • Social skills • ADLs • Risk management/behavioral • TUoS • Cultural safety					• Well-being • QoL
Purvis et al., 2013[17]	Children aged 3 – 14 y.o.	• 3-week summer camp o 1st session = 3-9 y.o. o 2nd session = 10 – 14 y.o.	•Daily schedules/routines •Intentional sensory input o Obstacle courses o Theraplay ™ o Music, art, swimming, equine-assisted therapy •Self-regulation groups •Play/social skill groups •Safety skills •Video self-modeling •Attachment ritual for safety	• OTs • College students paired with each child	• Increase in vocabulary • Increase in empathy & insight • Increase in affect • Increase in positive attachment • Negative behaviors were a result of deficits in the vestibular system	Yes	• Complex developmental trauma • Adoption • Abuse or neglect	• Self-regulation • Social participation • Well-being (security) • Play • QoL
Sanders et al., 2016[18]	30 children (3-12 y.o.) living in foster care with at least 1 parent committed to attending	Group activities related to a sensory domain theme each week (mouth, move, touch, look and listen)	• Co-regulation between child/parent • ALERT program ™ • SAFE PLACE Model • Sensory activities in safe & structured environment	• Family therapist • OT	• Increased attachment behaviors • Increased use of sensory strategies	Yes	Household Dysfunction (foster care)	• Self-regulation • Social interaction skills • Social participation • QoL

		& consultations, but did not state what kind of setting	○ Heavy work & calming routines ○ Theraplay ™ ○ Sensory modulation • Play-based learning		• Improved self-regulation			• Wellbeing • Education • Play
Shea et al., 2023[19]	25 OTs working with children aged 3-24 y.o. who have experienced trauma or mental health crises	• Outpatient • Community Rehab • Employment programs • Schools • Behavioral Health	• Educating clients how to advocate for themselves • Practicing perceptive attentiveness • High Five approach • Social skills ○ Co-regulation ○ Co-occupation ○ Building support systems • Self-exploration & reflection ○ Monitoring their own emotional tone/affect ○ Allowing clients to be experts of their feelings/experiences ○ Leisure/interest exploration ○ Exploring/adapting new environments • Coping & self-care skills • Unstructured structured sessions	• OT • Social work • Marriage/ family therapists • Nurse practitioners	• Increased autonomy • Improved advocacy abilities • Improved self-regulation • Improved communication skills • Stronger adaptability skills for children	Yes	"Trauma"	• QoL • Well-being • Social participation • Social Interaction Skills • Self-regulation • Education • IADLs
Walker et al., 2022[20]	1 child (3-year, 6 month) with behavioral concerns, moved foster homes 2x, then back with biological parent	Outpatient- 9 sessions over 3 months	• One occupation focus at a time • Play • Social skills - communication, sharing, turn taking, following commands • Self-regulation • Zones of Regulation, social stories, role	OT	• Stronger parent-child relationship • Self-understanding • More positive relationships • Decreased externalized behaviors	Yes	Household Dysfunction (foster care)	• Self-regulation • Education • QoL • Well-being • Play • Social interaction skills • ADL/IADLs

			play, empathy education, use of timers & transition training, visuals • Biological parent coaching • Deep breathing, joint approximation, role-playing, Sensory Integration, therapeutic breaks, visual aids, positive/encouraging tone, & creating a safe environment		• Improved performance & satisfaction from COPM			• Social participation
Walsh-Garcia et al., 2023[21]	60 OTs who worked in pediatric settings working with children with complex trauma	• Mental health services • Private practice • Primary care team • Social & educational services • School-aged team • Early intervention	• Sensory-based interventions • Sensory integration • Environmental adaptations • Leisure & social activities • ADLs (sleep) & IADLs • Emotional regulation & awareness • Play • Parent education & coaching	• OT • Often collaborate with – psych, social work, SLP, play therapists, school staff, nurses, physiotherapists	No results to report b/c they are listed as interventions provided by OTs who completed the survey	No	Complex trauma	• ADL • Sleep • Play • IADL • QoL • Education • Self-regulation • Well-being • Social participation
Warner et al., 2013[22]	13-19 y.o. females living in a RT	Residential treatment sites (RT)	• Sensory rooms with both alerting & calming supplies • Sensory diet including personalized sensory toolboxes • Sensory integration/ASI • "Cozy corners" in classrooms • SMART program	• OT • SpEd • Counselors • Crisis intervention team • Nutritionist • Psychiatrist	• Improved emotional & behavioral regulation • Support trauma processing • Reduction in restraints	Yes	All (complex trauma)	• Self-regulation • QoL • Wellbeing • Process skills
Wilburn et al., 2022[23]	• Children camp (9-12 y.o.)	Provides suggestions based on	• Building resilience through • Play	OTs	• Social-emotional intelligence	Yes	Children impacted by substance use d/o	• QoL • Self-acceptance

	• Adolescents camp (13-17 y.o.)	community interventions like Camp Mariposa model	• Leisure
			• Social participation
			• Building social skills through mentorship
			• Providing the "just-right" challenge
			• Group leisure activities
			• Interest/leisure exploration
			• Sensory
			  • Educate staff on sensory systems
			  • Environmental adaptations
			• Use of 5 C's (connections, confidence, character, competence, & contributions) of positive youth development to promote...
			  • Safe relationships
			  • Positive self-worth
			  • Self-regulation & positive decision making
			  • Developing individuality
			  • Basic school/work skills
			  • Occupational participation
					• Problem-solving skills
					• Positive coping strategies
					• Intentional self-regulation
								• Self-regulation
								• Social participation
								• Leisure
								• Well-being

The use of sensory integration (SI) was reported in five articles.[5, 16, 20-22] Two sources reported purposeful, movement-based activities, like heavy work and obstacle courses, as effective interventions to aid in self-regulation.[17-18] Purvis et al.[17] found that engaging tactile, vestibular, and proprioceptive sensory systems through obstacle courses and guided vestibular input provided from the child's caregiver led to an improved language, eye contact, and positive attachment behaviors. Additionally, art,[5, 16-17] music,[5, 16-17] equine-assisted therapy,[17] therapeutic swimming,[17] joint approximation,[20] and therapeutic listening[5] may have contributed to improvements in QoL and well-being. Additional strategies included adapting environments[5, 16, 19, 21, 23] and using visuals for transitions.[16, 20] All sensory interventions were delivered in a safe, supportive environment, ensuring the "just-right challenge" for each child. Collectively, the findings indicate frequent use of sensory-based and movement interventions across studies, with consistent associations to improved regulation, attachment, and participation outcomes.

Visual representation of the frequency of intervention types provided in the nine studies analyzed.

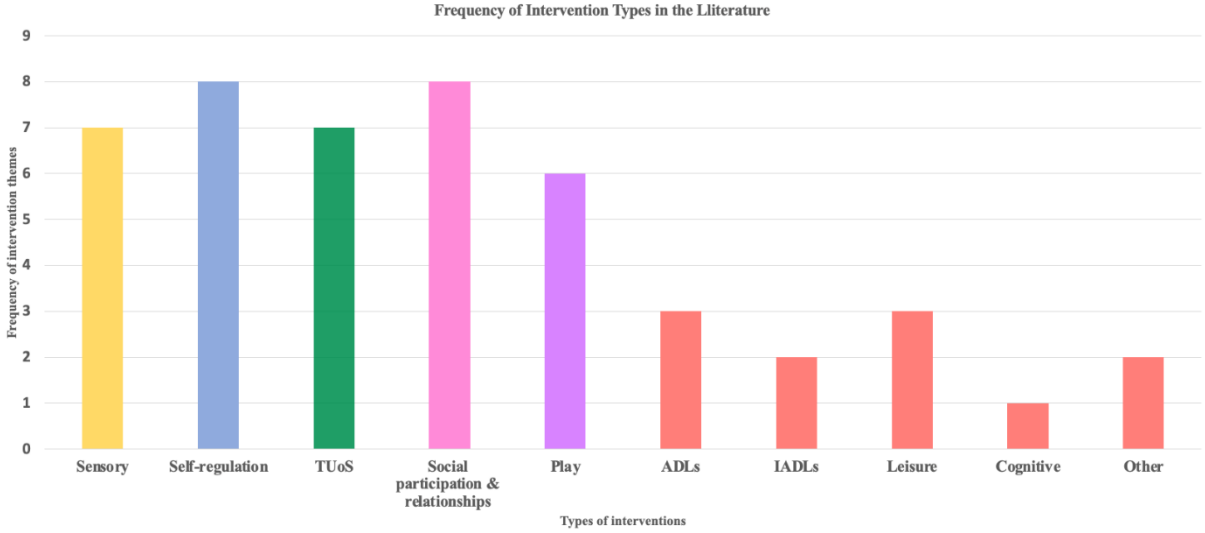

Figure 2. *F*requency of intervention utilization.

Self-regulation interventions. Self-regulation interventions were frequently identified as a core component in promoting healthy decision-making and overall well-being. Eight included studies integrated self-regulation programs or strategies into interventions for children who had experienced at least one ACE.[5, 16-21, 23] Three studies implemented the SAFE PLACE model (Sensory Attunement Focused Environments Playfulness Love Acceptance Curiosity Empathy), which emphasizes developmentally appropriate, safe, and supportive activities and environments and has been shown to enhance emotional regulation and support trauma processing.[5, 16, 18] Additional approaches included the High Five Approach,[19] the ALERT Program ™,[5, 18] and Zones of Regulation ™.[20] Social stories and role play were also utilized to educate caregivers and children about self-regulation language and strategies.[20] Occupational therapy practitioners also incorporated coping skills education and modeling,[17, 19] and participation in self-regulation groups[17, 23] to support QoL and well-being. Consistently, these self-regulation interventions focused on building emotional awareness, coping strategies, and adaptive responses to support participation and overall well-being. These interventions collectively emphasized development of emotional awareness, coping strategies, and adaptive responses to enhance participation and overall well-being.

Therapeutic use of self. Therapeutic use of self, defined as "using professional reasoning, empathy, and a client-centered, collaborative approach,"[12] was highlighted in seven of nine studies as critical for children who have experienced trauma.[5, 16-17, 19-21, 23] Across the studies, occupational therapy practitioners employed a flexible, client-centered approach that emphasized meeting the child at their current developmental and emotional level to facilitate engagement.[19] Applying "attentive empathy"[19] to guide interventions and fostering a sense of safety are critical elements in supporting emotional regulation and learning.[5, 17, 19-20] One framework highlighted was the 5 "C" model, a TUoS-based approach that promotes connection, confidence, character, competence, and contribution. Effective

implementation of this model has been shown to enhance children's developmental outcomes and therefore, may be associated with improvements in QoL.[23]

Occupational therapy practitioners were identified as vital in facilitating healthy child-caregiver relationships through ongoing parent education and training.[21] Five studies focused on strengthening adult-child relationships through education on techniques such as DIRFloortime ™,[5, 16] sensory breaks,[20] and the intentional use of tone of voice,[19, 20] and language use.[19] In addition, teaching children self-advocacy skills can boost autonomy and communication, aligning with OTPF-4 guidelines that call on OTPs to both advocate for and empower their clients.[19] With respect to minority populations who have experienced complex trauma, Mason and Stagnitti[16] emphasized allocating additional time for engagement, prioritizing rapport development, minimizing verbal demands, and facilitating family involvement. They further reported that enhancing clients' cultural safety positively influenced therapeutic engagement.[16] Overall, TUoS was reported in the majority of included studies, supporting relationship-based, client-centered approaches as a central component of OT interventions for children who have experienced ACEs.

Social participation & relationships. Social participation was suggested as a potential mechanism for enhancing QoL and well-being in eight of the reviewed studies. [5, 16-21, 23] Four sources further emphasized the importance of co-regulation education,[18-21] with Shea et al.[19] noting that OTPs intentionally utilized co-regulation strategies to promote interdependence skills, including recognizing when and how to seek support, initiating social interactions, and sustaining relationships within and beyond therapy. Additionally, three studies reported that caregiver education in co-regulation was associated with improved child self-regulation and strengthened caregiver–child relationships.[18, 20-21] Furthermore, group-based interventions addressed domains including life skills,[5, 19] social skills training,[5, 17, 19-20] self-regulation,[17, 19-20, 23] and leisure participation,[23] with group formats shown to facilitate positive peer interactions and relationship development.[20] Several studies further emphasized the importance of consistency, predictability, and rapport-building with both the child and their family.[5, 17, 20] One explicitly reported trauma-informed, relationship-based intervention was Trust-Based Relational Intervention (TBRI), a holistic framework designed for children with complex trauma, which was implemented to enhance caregiver involvement.[5] Overall, group participation and healthy relationship building were commonly described as approaches that may enhance QoL and well-being. Taken together, these findings indicate that social participation interventions are consistently associated with improved relationship building, caregiver engagement, and participation outcomes that support QoL and well-being.

Play. Play was mentioned as an effective intervention for children who have experienced trauma in six of the nine articles.[16-18, 20-21, 23] Across the majority of the literature, play was conceptualized broadly, with limited specification regarding types of play, duration, or clearly defined techniques and protocols. Nevertheless, two structured approaches were identified: DIRFloortime ™[5, 16] and Theraplay. ™[17-18] Both approaches conceptualize play as a relational and interactive modality, emphasizing the enhancement of social engagement, emotional regulation, and supportive caregiver–child connections.[24] Collectively, the findings indicate that play-based interventions are commonly utilized for children who have experienced ACEs, particularly as a means of supporting regulation, social engagement, and relational development.

Other interventions. Additional interventions that did not align with the primary thematic categories but were associated with improved QoL and well-being included activities of daily living (ADLs),[5, 16, 21] instrumental activities of daily living (IADLs),[5, 21] safety training and video self-monitoring,[17] and leisure exploration and participation.[19, 21, 23] Three studies incorporated ADL-focused interventions, with sleep routines frequently addressed within treatment sessions,[5, 16, 21] while two studies targeted IADL performance.[5, 21] Leisure-based interventions were highlighted in three articles as mechanisms for enhancing engagement and overall well-being.[19, 21, 23] Video self-monitoring was utilized to promote respectful behavior through structured skits that children later reviewed to reinforce skill acquisition, and safety training addressed complex trauma through scenario-based learning (e.g., "stranger danger") to strengthen personal safety and emotional security.[17] Fraser et al.[5] further reported the integration of cognitive-behavioral approaches, including Cognitive Behavioral Therapy (CBT), Dialectical Behavior Therapy (DBT), and Dyadic Developmental Psychotherapy (DDP). Overall, these supplementary interventions were less frequently reported but consistently supported QoL and well-being by targeting daily functioning, safety, and meaningful participation.

Professional Involvement

All included articles demonstrate that OTPs most commonly collaborate with other professionals to address the impact of ACEs, rather than working independently. Only three studies reported OTPs practicing without the involvement

of other disciplines.[16, 20, 23] Professionals with psychological or counseling backgrounds were the most frequently represented collaborators, reported across five studies and including psychologists, family therapists, crisis intervention teams, counselors, and psychiatrists.[5, 18-19, 21-22] Social workers, encompassing case managers and family support workers, were part of the interdisciplinary teams in three studies.[5, 19, 21] Similarly, speech-language pathologists (SLPs) were identified in two studies,[5, 21] while educators, including teachers, special education staff, and other school personnel, were noted in three.[5, 21-22] Nursing professionals, including nurse practitioners, were also involved in three studies.[5, 19, 21]One study described OTPs overseeing college students who worked directly with children affected by ACEs in a summer camp program.[17] Finally, a single study incorporated a nutritionist as part of the interprofessional team.[22] Generally, the findings indicate that OTPs primarily function within interdisciplinary teams, with collaboration most commonly occurring across mental health, social work, and education disciplines to support comprehensive care for children with ACEs.

Alignment with Quality of Life and Well-Being

Seven of the nine articles corresponded to at least one construct associated with improved quality of life (QoL) or well-being.[5, 17-20, 22] These constructs included life satisfaction, self-concept/self-esteem, health and functioning, security/sense of belonging, and opportunities for self-determination, meaning, roles, and helping others.[12] One article more explicitly discussed life satisfaction.[20] Additionally, six articles reported enhanced health and functioning, including improvements in communication,[17,19] stronger self-regulation abilities,[18-19,22-23] decreased externalized behaviors,[20] and reduction in restraints.[22] Security and sense of belonging were identified in five articles, demonstrated through improved attachment behaviors and relationships,[5, 17-18, 20] and trauma processing.[22] Lastly, opportunities for self-determination, meaning, roles, and helping others were discussed in five articles, reflected in stronger parent-child relationships,[5, 18, 20] increased autonomy,[19] improved advocacy skills,[19] and increased problem-solving skills.[23] Collectively, these categories indicate that QoL and well-being were positively supported by OT intervention, consistent with the definitions outlined in the OTPF-4.[12]

Type of ACE

The specific types of adverse childhood experiences (ACEs) were not explicitly identified in five of the nine included studies; instead, authors referred to participants' experiences using broader terms such as "complex trauma," which often encompasses multiple ACE categories.[16-17, 19, 21-22] Several studies, however, provided more detailed descriptions of the ACEs experienced. For instance, Wilburn et al.[23] focused specifically on children affected by parental substance use disorders. Two studies explicitly identified neglect as one of the ACEs experienced, [5, 17] and the same two studies also reported various forms of abuse, including physical, emotional, and sexual abuse. Household dysfunction; such as experiences involving foster care or adoption; was addressed in four of the nine articles.[5, 17-18, 20]

Discussion

Occupational therapy practitioners implement a diverse range of interventions to support improvements in QoL and well-being among children aged 3–17 years who have experienced one or more ACEs. These approaches include sensory-based and movement strategies, self-regulation programs, and interventions targeting social participation, play, leisure, and ADL/IADL performance, all aimed at addressing the multifaceted impacts of trauma. Sensory and movement-based strategies help children regulate arousal and reduce behavioral escalations, while self-regulation programs cultivate coping skills and emotional awareness. Skilled TUoS, combined with caregiver collaboration, fosters trust, safety, and attachment, while group-based interventions and play enhance self-awareness, interpersonal relationships, and peer engagement. Functional interventions targeting ADLs and IADLs further enhance independence and daily well-being. Together, these interventions may support both the emotional and functional domains of QoL for children who have experienced ACEs.

Additional findings from this scoping review highlight the importance of context and professional involvement in service delivery. Occupational therapy practitioner services were predominantly delivered in outpatient and community-based environments, with comparatively fewer studies identifying inpatient settings, indicating a shift toward more accessible, real-world contexts of care. This distribution suggests that interventions are often implemented in settings that support participation in daily routines and natural environments. Across the literature, there is a consistent emphasis on the need for OTPs to practice within interprofessional teams rather than in isolation. Such collaboration is critical for delivering holistic, trauma-responsive care and may contribute to reducing long-term negative outcomes for children who have experienced ACEs.

While seven of the studies reported outcomes directly related to improvements in QoL and well-being, the remaining two incorporated interventions that aligned with these constructs. Improvements in QoL and well-being were reflected through increased prosocial behaviors with peers and caregivers, as well as enhanced coping skills. The development of positive relationships and stronger self-regulation strategies, including sensory-based approaches, supported constructs such as security, sense of belonging, self-concept, and self-esteem, all of which are central components of QoL. Strong, supportive relationships contribute to a child's sense of safety, trust, and inclusion, which in turn facilitates greater engagement in meaningful occupations and daily participation. Additionally, TUoS enhances QoL and well-being by fostering a trusting, empathetic, and client-centered therapeutic environment, which supports emotional safety, promotes self-expression, and strengthens engagement in intervention. Improvements in communication abilities also enabled children to express emotions and needs more effectively, further strengthening relationships and supporting overall QoL and well-being.

Occupational therapy practitioners are well-positioned to utilize TUoS to help mitigate the negative life outcomes associated with ACEs by intentionally integrating trauma-responsive care into everyday practice to support QoL and well-being. This begins with developing a strong foundation in trauma-responsive principles and pursuing ongoing professional development to enhance competence across diverse clinical populations. During evaluation and intervention, OTPs should incorporate trauma-informed questioning, actively engage caregivers, and seek to understand the child's lived experiences to promote individualized care that supports key QoL constructs such as security, self-concept, and participation. Approaching discussions of trauma with sensitivity and clinical curiosity can further inform client-centered interventions that enhance emotional regulation, engagement, and overall well-being.

Beyond direct service delivery, OTPs play a critical role in promoting awareness of how trauma impacts self-regulation, attention, and social participation, all of which are essential to QoL and well-being. Practitioners should advocate for interprofessional collaboration to ensure comprehensive, holistic care that addresses emotional, social, and environmental factors influencing participation. Emphasizing continuity of care is also essential, as it can reduce the need for children to repeatedly disclose traumatic experiences, thereby supporting a sense of safety and trust. Through these trauma-responsive, collaborative, and occupation-centered practices, OTPs can foster resilience, strengthen relationships, and enhance children's ability to engage in meaningful occupations, ultimately promoting improved QoL and overall well-being.

Limitations

This scoping review has several limitations. A primary limitation was the exclusion of school-based interventions, where many children typically receive OT services, which may have influenced the scope of findings. Additionally, the review included a relatively small number of studies (n = 9), limiting the generalizability of results. Variability in how interventions were described across studies and the lack of standardized outcome measures further restricted the ability to compare findings and draw consistent conclusions related to QoL and well-being. Although multiple databases were searched, all were accessed through a single platform (EBSCO), which may have limited the breadth of the search strategy. Furthermore, OT research outside of school settings remains relatively limited compared to other disciplines, such as psychotherapy. As ACE-related research continues to expand, increased contributions from occupational therapy practitioners have the potential to strengthen the evidence base and improve clarity in intervention approaches and outcomes.

Conclusions

The role of OTPs in mental health requires ongoing development and research. This scoping review found that OTPs are actively working with children with ACEs, utilizing primarily evidence-based interventions grounded in traditional OT practices. The most implemented approaches focused on improving social skills, participation, and self-regulation, strategies shown to reduce seclusions, restraints, emotional outbursts, and stress levels. Sensory-based interventions and play were also frequently used and supported by evidence, contributing to improvements in communication, emotional regulation, and confidence. Including family or caregivers in treatment sessions was identified as a critical component for successful outcomes. Additional effective interventions included promoting sleep hygiene, supporting performance of ADLs, fostering self-advocacy in children, and encouraging leisure participation and exploration, all aimed at enhancing overall well-being. Across all interventions, establishing a safe environment and building strong rapport with both the child and family were emphasized as important factors that may contribute to maximizing

therapeutic outcomes and improving QoL and well-being. There is a need to strengthen the evidence base and guide clinical practice due to a general lack of specificity in the literature regarding the guidelines for intervention. Future initiatives should explore the benefits of early identification of a child's ACEs and develop programs to support individualized and effective interventions that promote QoL and well-being.

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