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REVIEW ARTICLE



# How transactional relations contribute to adaptive developmental outcomes when young people with disabilities participate in specially designed group programs – a scoping review

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## ABSTRACT

**Background:** Meta-synthesis can enhance our existing knowledge regarding experiences of participation in group-based programs designed for young people with disabilities.

**Aim:** This study aimed to identify the transactional relations between the social contexts in group programs and meaningful personal experiences and developmental processes for young people with disabilities.

**Method:** For this research, 4 electronic data-bases were searched, 3406 citations were reviewed, and 13 qualitative studies describing experiences of participation in specially designed group-based programs from the perspective of young people with disabilities were included. A meta-ethnographic approach was used to synthesise the data, and resulting categories were conceptualised in King et al.'s framework of transactional processes and adaptive development.

**Results:** Nineteen categories across six themes describing: environment, social context, social mechanisms, personal processes, meaningful experiences, and outcomes demonstrated the dynamic interrelation between social context and personal processes. Peer group interaction was essential for exploring capacities and developing strategies.

**Conclusion:** This review highlights the important role of the peer group in transferring program experiences into the everyday life contexts of young people with disabilities. It may assist professionals who are considering the use of peer groups when planning participation-focussed programs aiming to facilitate personal development for young people with disabilities.

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Adolescence; meaningful experiences; participation; peer interactions; self-understanding; young adults

## Introduction

During adolescence (age 12–18 [1]) and young adulthood (age 19–40 [1]), peer relations are of particular importance in forming developmental experiences that act as social support networks crucial to the exploration of new social roles and the development of skills and competencies for navigating life [1–5]. Most young people with disabilities grow up as the only person with a disability in their immediate environment, limiting their opportunities to meet relatable role models and mentors [3,6,7]. They often have difficulty identifying meaningful and appropriate settings in which to explore their needs and strengths, potentially limiting their opportunities to build their resilience and gain important knowledge and resources for negotiating social environments [4,5,8,9]. Sense of community is recognised as a strong predictor of

feelings of emotional safety and engagement in challenging and growth-enhancing activities [10,11]. Specially designed group-based summer camps and rehabilitation and recreational programs for young people with disabilities, which provide activities adapted to their needs and that build on their strengths, are known to be inspiring, safe, and supportive learning contexts [4,7,10,11].

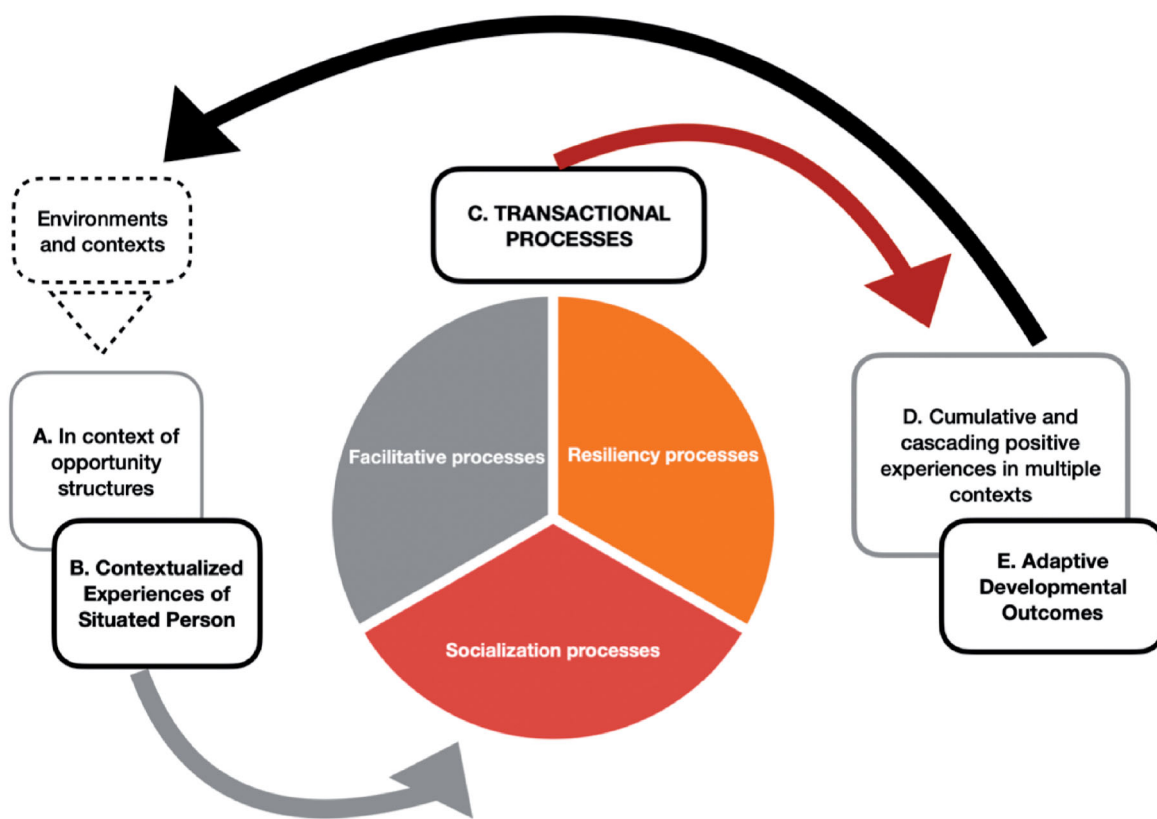
Relational models like the International Classification of Function, Disability, and Health (ICF) [12] form a foundation for understanding disability based on a biopsychosocial approach. Disability is understood as resulting from dynamic interactions between environmental and individual factors, placing individual participatory experiences as the unifying construct, with full participation in society as the optimal goal to be shared by young people with disabilities and health care professionals

[5,12,13]. Personal experiences of the situated context are based on its ability to provide opportunities and resources to form a meaningful participation process [5,14]. During activity participation, the individual's previous experiences, self-understanding, and personal traits, including motivation, skill level, and need for social connection, play a key role in determining the meaning of experiences and level of engagement in the ongoing participation process [5,13,14]. Through experiential learning processes rehabilitation programs can form developmental experiences that focuses on not only improving function and skill level but also improvement of the individual's understanding of how to influence and navigate diverse participation contexts, [5,13].

Personal growth is shaped by a complex interplay of risk and protective factors within each person, as well as by structures and support processes in the situated context and the broader environment [5,15]. Based on this understanding, King et al. [5] have

identified three types of transactional processes that support the balance between a person and their environment and potentially lead to positive development: (a) facilitative processes that enhance capacity, (b) resiliency processes that enhance adaption in the context of adversity, and (c) socialisation processes that enhance adaption in the face of sociocultural transitions [5]. The identification of these processes provided a foundation for the development of a conceptual framework of transactional processes (see Figure 1).

According to the transactional framework, adaptive development and learning are defined as capacity development, the acquisition of adaptive strategies, and socialisation to new roles and life transitions. Facilitative processes relate to the development of skills and capacities and require contexts that support experiences of choice, active engagement, collaboration, and experiential capacity. Resiliency processes relate to the development of positive adaption and



A) Opportunity structures afforded in the situated context; B) Personal experiences arising from involvement and active engagement in situated context; C) Transactional processes involving capacity facilitation, resiliency and socialization processes; D) Cumulative and meaningful experiences leading to developmental outcomes; E) Outcomes, including capacity, adaptation and socialization development, as well as changes in relation facing environmental changes and constraints.

**Figure 1.** Transactional framework adapted from 'A transactional framework for pediatric rehabilitation: Shifting the focus to situated contexts, transactional processes, and adaptive developmental outcomes' by King et al. [5,p.1834]. Copyright by [www.tandfonline.com](http://www.tandfonline.com).

person-in-context changes, requiring opportunities for facing adversity and practicing resilience [5]. Resilience is related to strategies for assimilation, in the form of self-regulatory, mastery, and negotiation processes and accommodation, in the form of compensatory or protective opportunities (e.g. consciously selecting contexts that are expected to provide new opportunities or support). Socialisation processes relate to adaption to or active engagement in changing contexts, requiring opportunities for engaging in roles or undergoing cultural changes leading to positive acculturation (e.g. through a change in personal or societal values or reference groups) [5]. The three types of transactional processes can be triggered in multiple contexts and by varied social mechanisms. They are interdependent and can be triggered separately, consecutively, or simultaneously [5]. Rehabilitation programs and, potentially, physical and recreational programs for young people with disabilities can work as trigger mechanisms, accelerating the desired adaptive developmental processes by encouraging services to create opportunities for participation experiences tailored to individual needs [5,7,13].

Professionals and service providers delivering programs to young people with disabilities must understand not only the key elements that contribute to meaningful experiences of participation but also the nature of the interactional processes between individual and context [5,13]. This means identifying meaningful opportunities and experiences that can lead to important developmental and adaptive processes. It is also crucial to understand how such experiences can prepare and support young people with disabilities to negotiate and adapt to changing environments and to acknowledge their ability to actively contribute to changes in their own lives, environment, and society [5].

Undertaking a scoping review with a meta-ethnographic approach allowed us to synthesise and build upon existing knowledge regarding young people with disabilities' experiences of participation in specially designed group programs [16–20]. The purpose of this review was to explore the transactional relations between contextual opportunities, social mechanisms, and personal processes related to the formation of adaptive developmental outcomes in specially designed group programs.

This review specifically aimed to (a) identify how transactional relations between essential contextual components and social mechanisms in a group program contribute to meaningful personal processes, (b) identify adaptive developmental outcomes of the

transactional participation processes, and (c) describe key program components that should be considered when designing and implementing specially designed group programs that aim to enhance capacity development and the ability to navigate various participation contexts for young people with disabilities.

## Methods

A scoping review with a meta-ethnographic approach was used to identify and analyse key articles in the disability research literature describing how group-based specially designed programs (including summer camps, leisure activities, adapted sports activities, and rehabilitation interventions) can provide important meeting places for young people with disabilities. This study followed the six-stages methodology for scoping reviews proposed by Arksey and O'Malley [18], which includes the following stages: (a) identifying the research question, (b) searching for relevant studies, (c) selecting studies, (d) charting the data, (e) collating meaningful concepts, summarising, and reporting the results, and (f) consulting with stakeholders (optional).

## Search strategy

Searches were undertaken of four electronic databases; (Scopus, CINAHL (Ebsco), Medline (Ovid), and Web of Science)—that are considered relevant for rehabilitation, adapted sports, and leisure research. With the creation of the ICF in 2001 [12], focus on participation-based research increased; therefore, records from 1990 to the most recent records in June 2019 were chosen to target research based on the relational understanding of disabilities and to emphasise the dynamic relationship between individual experiences and social context [12]. The reference lists of selected articles were also reviewed to identify novel studies. The focus of the literature search was to identify qualitative research that involved the voice and perspective of young people as its primary source of information, such as interview-based and ethnographic studies. Key search terms were mapped according to the following four concepts: (a) Youth, adolescents, young adults, young people; (b) Disability, impairment, disabled person; (c) Group, social participation, peer group, team; and, (d) Physical activity, recreation, leisure activities, camp, sports, rehabilitation program. Combinations of these search terms were identified, truncated, exploded, and

adjusted with a librarian's assistance to meet the unique requirements of each database.

### **Study selection**

The scoping review methodology is iterative, allowing for inclusion and exclusion criteria to be defined and refined in an ongoing manner in line with the researchers' increasing familiarity with the literature [18]. Numerous readings of the titles and abstracts of the identified articles determined their relevance, and articles were included if (a) they targeted young people with primarily physical disabilities participating in a program or intervention adapted and planned for this demographic; (b) the program or intervention primarily adopted a peer group approach, with the active use of peer learning and formal and informal social interaction in physical and leisure activities, or life skills practice and was delivered as either an ongoing local leisure program or a time-limited residential intervention or camp; (c) they described the young people's experiences of the program in general terms and in the social peer context specifically; and (d) they were published in English or Scandinavian languages to meet the language skills of the authors.

Articles were mainly excluded for the following reasons: (a) the sample consisted of people whose primary diagnosis was a non-physical disability (i.e. severe mental or intellectual disabilities), an age-related disability, or an acquired injury where the focus of the article was on the formation of a new identity related to the disability; (b) the program was held in a formal context with no or limited peer interaction (e.g. class room setting); (c) the participants in the studies were mainly younger or older than our desired age range (following the age definition for adolescents and young adults by Erikson and Erikson [1]); (d) the study focussed only on personal outcomes, without considering the social context of the program; (e) the study compared a specially designed program context with stigmatising structures in the local environment, with a limited focus on interactional processes within the program, the personal experiences of the participants, and the outcomes of participation; and (f) the program focussed mainly on behavioural and social skills training.

The first author performed the initial study selection independently with the opportunity to consult with the research team, while three reviewers assessed the relevance of the articles selected for full text review.

### **Charting the data**

Data were extracted from selected articles according to a data charting framework containing descriptive entries and specific thematic information [18,20]. The extracted data included a description of the population and programs discussed in the paper; the terms defined in the individual articles were used to identify key elements and concepts contributing to the social context of the programs, the processes of participation, and the participants' outcomes. Each reference was allocated a unique reference number and was categorised by author, date of publication, country, study population, and program setting.

### **Collating, summarizing, and reporting the results**

Following the approach described by Noblit and Hare [19], a meta-ethnographic synthesis was conducted by the first author in collaboration within the research team to increase the understanding of how concepts interacted and connected during participation processes. Initially, multiple readings of each study were undertaken to gain an understanding of each paper's unique interpretation of key concepts [19,20]. A reciprocal translation analysis was used to translate concepts from one study to another by systematically comparing the findings of each study. Contradictions between the individual studies were explored and compared using refutational synthesis as a critical and reflective approach to developing a broader understanding of the relevant concepts and processes [19,20]. Rather than simply aggregating the findings, a line-of-argument synthesis was used to reconceptualize key themes to produce new insights and explanations of the relationship between social participation processes and meaningful individual experiences and development [19,20].

To critically consider and reflect on the relevance of the evidence from the review, Dixon-Woods et al. [20] suggested integrating the evidence into a coherent existing framework that has guided the particular field of research to which the study belongs. In this review, the identified concepts and processes were positioned within the transactional framework proposed by King, Imms [5], underlining the interactional processes within the experience of participation. This enabled greater insight into the credibility of the evidence and provided a more formalised and generalisable way of understanding the concepts and social processes that contribute to the meaningful experiences and personal development



arising from participation in group-based programs for young people with disabilities.

## Results

A total of 4453 references were identified through the database search, which was reduced to 3406 after the removal of duplicates. These article titles and abstracts were screened, and 79 full texts were then reviewed, with 13 articles identified as meeting the inclusion criteria (see Figure 2).

### Study design

The 13 selected studies were published between 2001 and 2018, and all had a qualitative design. Six articles were based on data gathered using semi-structured interviews [21,25,26,28,30,31], six articles used a combination of semi-structured interviews and at least one other qualitative method [22–24,27,29,32,33], including observation [23,27,29,32,33], qualitative survey [24], document review [27], and photovoice data [22]. Five studies utilised a phenomenological analytical approach [24,26,27,31,32], two studies utilised a theoretically informed ethnographic analysis [23,29], two studies utilised a framework analysis [22,33], two studies utilised a grounded theory analysis [21,30], and two studies used a qualitative content analysis [25,28]. Table 1 summarises the descriptive characteristics of the studies.

### Participant characteristics

The majority of the studies examined a sample with heterogeneous disabilities ( $n = 10$ , [21,22,25,27–33]). In three studies, the authors referred to their participants as children, youth, or adults with disabilities, with no specific information regarding diagnoses ( $n = 3$ , [25,29,31]). Other studies referred to their participants as children, youth, or adults with a range of physical and/or developmental disabilities, referring to acquired brain injury, amputation, cerebral palsy, congenital limb malformations, intellectual disabilities, muscular dystrophy, neurological disease, osteogenesis imperfecta, reflex-sympathetic dystrophy, rheumatoid arthritis, spina bifida, spinal cord injury, and visual impairments ( $n = 7$ , [21,22,27,28,30,32,33]). In five of the studies, the activities in the program were adapted to a homogenous level of function for wheelchair-based activities [21,22,29,32] or were adjusted for visual impairments [26]. Three studies had a homogenous sample group, examining only young people with multiple sclerosis [23], cerebral palsy [24], and visual

impairments [26], respectively. Five studies included perspectives from third parties, including parents [23,24,26,33] and service providers [23,32]; these perspectives were excluded from the analysis.

The age range of participants in the included studies spanned from 9 to 76 years old. Studies were included if the majority of participants were young people, based on Erikson and Erikson's [1] definitions of adolescents as 12–18 years old and young adults as 19–40 years old. However, some studies [22–26] did not provide detailed descriptions of the age range or mean age of participants, and in one paper [32], the majority of participants were older than preferred. These papers were nevertheless included to ensure a greater variety of participant perspectives and because the focus of the programs in question and the experience of the participants on peer interactional processes were particularly relevant to the scope of this review.

### Setting

Table 1 presents details of the settings and program activities of all included studies. Five of the programs were residential summer camps for young people [23,26,27] or adults [21,24] with disabilities, focussing on sports and recreational activities. Two of the summer camps were delivered to homogenous participant sample groups: young people with multiple sclerosis [23] and adults with cerebral palsy [24]. Two others catered to participants with similar levels of function: adults with spinal cord injuries and lower extremity amputations [21] and young people with visual impairments [26], and one was delivered to a heterogeneous group of participants [27]. The duration of the camps varied from three to seven days. Five of the programs were ongoing local programs, four offered adapted sports participation for young people [22,28] or young people and adults [29,30], and one focussed on young people's participation in music [25]. Three programs were residential intervention programs focussing on life-skills training for young people [31], manual wheelchair skill practice and adapted physical activities for adults [32], and adapted physical activities for children and young people [33]. The duration of the residential intervention programs varied from nine days to three weeks.

### Meta-ethnographic analysis

The reciprocal analysis identified several elements contributing to meaningful experiences of participation in group-based programs for young people with

Table 1. Descriptive table of included studies.

N°	Author, year, country	Description of study population (age, disabilities)	Qualitative methods	Perspective		
				Young people	Parents	Other
21	(Ashton-Shaeffer, Gibson, & Autry, 2001), USA	15 adults (20–50 years) with spinal cord injuries or lower extremity amputations	Semi-structured interviews. Grounded theory analysis	•		1 week long, residential Summer camp, sports and recreational activities
22	(Aytur et al., 2018), USA	8 sledge hockey athletes (9–16 years), various diagnosis	Photo-voice. Framework analysis	•		Ongoing, Community based competitive sledge hockey
23	(Block et al., 2011), USA, Canada	75 youth with MS (11–19 years), parents and service providers	Observation, semi-structured interviews, and focus group interview. Ethnographic analysis	•	•	Two types of 3 days residential Summer camp: (1) Recreational, adventure camp. (2) educational transition retreat
24	(Dawson & Liddicoat, 2009), USA	27 adults (19–76 years) with cerebral palsy; and their parents	Semi structured interviews, focus groups, qualitative survey (parents, low response rate).	•	•	1 week residential Summer camp, recreational activities
25	(Eidevall & Leufstadius, 2014), Chile	Six youth and young adults (13–23 years) with physical disabilities	Phenomenological analysis	•		Local, ongoing Music, leisure program
26	(Goodwin, Lieberman, Johnston, & Leo, 2011), Canada	13 youth (9–15 years) with visual impairments	Semi-structured interviews. Qualitative content analysis	•		1 week residential Summer camp, sports activities
27	(Goodwin & Staples, 2005), Canada	9 youth (14–19 years), with disabilities; and their mothers	Semi-structured interviews, focus group interviews. Phenomenological analysis	•	•	1 week residential Summer camp, sports and recreational activities
28	(Groff & Kleiber, 2001), USA	11 youth (15–21 years) with various physical disabilities	Semi-structured interviews. Qualitative content analysis	•		Local, ongoing Adapted after school sports program (various sports)
29	(Jeffress & Brown, 2017), USA	23 male and 11 female power soccer athletes (10–52 years, <i>M</i> age = 22.4)	Observations, semi-structured interviews. Ethnographic analysis	•		Local ongoing Adapted sports programs, power soccer
30	(Lundberg, Taniguchi, McCormick, & Tibbs, 2011), USA	17 youth and adults (14–50 years) with various physical disabilities	Semi-structured interviews. Grounded theory analysis	•		Local, ongoing Adapted sports and recreation programs and activities
31	(McPherson et al., 2018), Canada	17 youth and young adults (14–27 years) with various diagnosis	Semi-structured interviews. Phenomenological analysis	•		9–12 days residential Life-skill training programs
32	(Standal & Jespersen, 2008), Norway	20 adult wheel chair users (26–60 years) + 2 peer consultants	Observations, semi-structured interviews. Phenomenological analysis	•	•	2.5 weeks residential rehabilitation program, wheelchair skills and adapted physical activities
33	(Willis et al., 2018), Norway	31 children and youth (6–17 years) with disabilities, and 44 parents	Observation, focus group interviews, semi-structured interviews. Framework analysis	•	•	3 weeks residential rehabilitation program, adapted physical activity

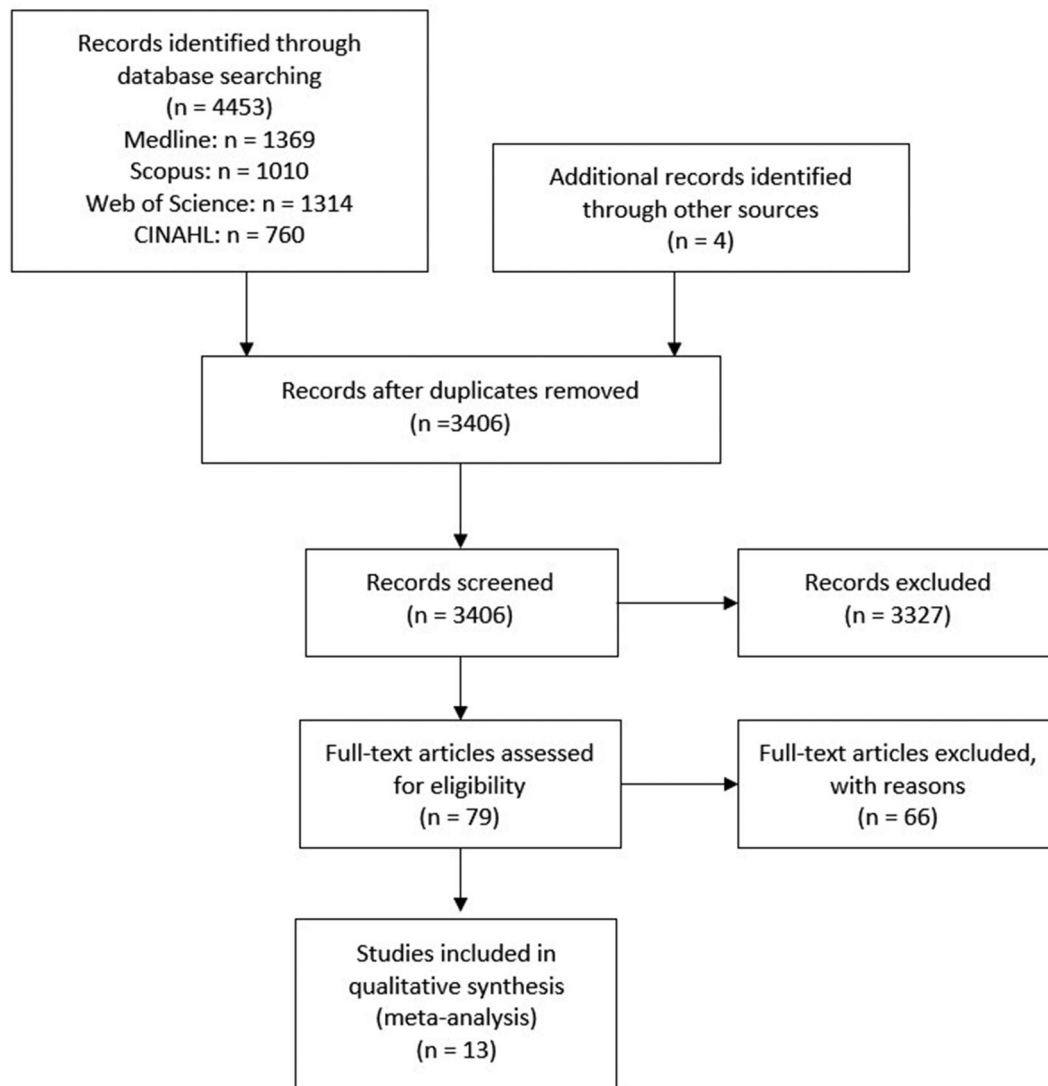


Figure 2. Flow chart of the inclusion process for articles.

disabilities. Categories were developed based on an inductive analysis of codes, patterns, and relationships across studies. The development of the categories also took into account differences in program type (local recreational activity program, residential summer camp, or intervention program), time frame (time-limited or ongoing), and participant age. Nineteen categories, representing meaningful participant experiences and outcomes, were inductively constructed from the essential elements identified in the reviewed studies. Following the transactional framework developed by King, Imms [5], the categories positioned participation processes and personal development as outcomes of transactional and dynamic relations between environmental structures, social mechanisms, and personal processes, and related them to one of six overarching themes:

1. Two categories described experiences of disabling structures in participants' everyday lives outside the program (E).
2. Four categories described experiences of opportunities and resources provided within the context of the program (C).
3. Three categories described social mechanisms (M), covering aspects resulting from dynamic interactional relations between participants in the program.
4. Three categories described personal processes (P), covering internal reflections, emotions, or self-regulatory processes controlling and adjusting participants' interactions with their social context.
5. Four categories described process-based outcomes (PO), covering aspects that operated both as an outcome of program participation and as a



**Table 2.** Identified themes and categories, and contributions of each article.

Article N <sup>o</sup>	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]	[31]	[32]	[33]
Themes and Categories													
Disabling Environmental Structures													
E1. Stereotyping Attitudes, Low Expectations and Sheltering, (n = 11)	•		•	•	•	•	•	•	•	•	•	•	
E2. Negative Segregation and Lack of Opportunities, (n = 10)	•	•		•	•	•	•	•		•		•	•
Contextual Opportunities and Resources Within the Program													
C1. Opportunities, (n = 13)	•	•	•	•	•	•	•	•	•	•	•	•	•
C2. Equipment, Services and Adapted Activities, (n = 9)		•				•	•	•	•	•	•	•	•
C3. Specialised Staff and Professionals, (n = 8)	•		•	•	•	•					•	•	•
C4. Time, (n = 7)				•	•	•	•				•	•	•
Social Transactional Mechanisms:													
M1. Inclusive Community, (n = 13)	•	•	•	•	•	•	•	•	•	•	•	•	•
M2. Relatable Role Models (n = 13)	•	•	•	•	•	•	•	•	•	•	•	•	•
M3. Sense of Safety, (n = 12)	•		•	•	•	•	•	•	•	•	•	•	•
Internal Personal Participation Processes:													
P1. Belonging, (n = 13)	•	•	•	•	•	•	•	•	•	•	•	•	•
P2. Learning and Exploring Abilities, (n = 13)	•	•		•	•	•	•	•	•	•	•	•	•
P3. Courage and Motivation for Engagement, (n = 9)	•		•		•	•	•		•		•	•	•
Processual Outcome:													
PO1. Freedom, (n = 13)	•	•	•	•	•	•	•	•	•	•	•	•	•
PO2. Mastery Experiences and Increased Competence, (n = 13)	•	•	•	•	•	•	•	•	•	•	•	•	•
PO3. Friends and Social Networks, (n = 10)	•	•	•	•		•	•	•	•	•	•	•	•
PO4. Enjoyment, (n = 9)	•			•	•	•	•	•	•	•			•
Adaptive Developmental Outcomes of Program Participation:													
ADO1. Increased Understanding of Self, (n = 13)	•	•	•	•	•	•	•	•	•	•	•	•	•
ADO2. New Perspectives and Motivation for Future Engagement, (n = 13)	•	•	•	•	•	•	•	•	•	•	•	•	•
ADO3. Abilities to Navigate Society, (n = 11)	•	•	•	•	•	•		•	•	•	•	•	

motivating factor for further engagement in the program.

- Three categories described adaptive developmental outcomes (ADO) of program participation in the form of increased capacity and resilience and improved socialisation strategies, helping individuals to navigate and negotiate participation in diverse social contexts.

Table 2 illustrates the identified categories placed within the overarching themes and the reviewed articles' contributions to each category. The categories are described in detail below.

### **Disabling environmental structures**

In all the included studies, participants recounted negative experiences related to their opportunities for participation in physical, recreational, and social activities in their local environments [21–33]. These experiences were related to two categories: (E1) Stereotyping attitudes, low expectations, and sheltering; and (E2) Negative segregation and lack of opportunities.

#### **E1. Stereotyping attitudes, low expectations and sheltering**

Participants in eleven studies [21,23–32] described their experiences of living in a society based on a normalising gaze [21,23,24,27,32] and stereotyping attitudes [25–31], leading them to feel stigmatised

[25,27,28,30]. Being met by low expectations was mentioned in seven studies as a disabling structure in the environment [25–31]. Experiences of being met with pity or condescension [25–28,30] and being underestimated or sheltered from activities that might lead to mistakes or negative encounters [29,31] were described by participants as limiting their chances for growth-related experiences.

#### **E2. Negative segregation and lack of opportunities**

In 10 studies, participants described feelings of segregation [21,22,24–28,30,32,33]. Lack of accessible and suitable opportunities for participation [24–27,33] and social isolation and feelings of exclusion or segregation [21,22,24–27,33] were common experiences, leading participants to feel different from their peers. Feelings of difference were based on the experience of not being able to do what others did or on an increased awareness of their disability when in the presence of peers without disabilities [21,26–28,30,32].

### **Contextual opportunities and resources within the programs**

In all included studies, participants reported positive and meaningful experiences related to the opportunities and resources available in the program [21–33]. These experiences were related to four categories: (C1) Opportunities; (C2), Equipment, services, and adapted activities; (C3) Specialised staff and professionals; and (C4) Time.

### **C1. Opportunities**

Having opportunities to participate in various experiences is a prerequisite for the personal processes (P1–3) and social mechanisms (M1–3), and was identified by all studies as a vital element of participants' outcomes (PO1–4, ADO1–3). Opportunities were related not only to participating in physical and recreational activities [21–33] but also to meeting others who shared the experience of living with a disability [21–33].

Being able to test different activities, be physically active, be part of a group, travel, and meet peers were seen as meaningful experiences of participation in all studies [21–33]. A chance to take on diverse social roles, including being an athlete, musician, teammate, or independent adult, enabled participants to express who they are or who they want to be (ADO1, ADO3) [21,22,25,30,31]. Participants viewed the programs as providing a chance to explore their abilities and challenge barriers (P2), which are important for the development of skills (PO2) [21–24,26–28,31–33] and independence (ADO1) [24,27,31].

In the five studies exploring weekly participation in local community programs, participants' ability to get involved in preferred activities and practice something they loved was highly meaningful to them and was considered a high point in their lives (PO4) [22,25,28–30]. Summer camps and intervention programs were welcome opportunities to experience new activities, practice skills (P2), and socialise (M1); some studies contrasted this with participants' ability to do these things in everyday life, as described in E2 [21,24,26,27,31,32,33].

In all studies, the opportunity to share the experience of living with a disability and to participate in activities together was recognised as an important resource for information, learning, and the exchange of real-life experiences (ADO1–3) [21–33].

### **C2. Equipment, services, and adapted activities**

The use of adapted activities, specialised equipment, support services, and universal design facilities was mentioned in nine papers as essential to the development of opportunities suited to each individual's needs as well as to ensuring independence and safety during activity participation [22,26–33]. In five studies, access to activity devices, such as specialised wheelchairs, sit skis, or other equipment, was also highlighted as playing an essential role in forming experiences of freedom outside the specific program (PO1) by creating opportunities for participation in multiple arenas and enabling participants to do

activities with whomever they desired (E2, ADO2, ADO3) [22,28–31].

### **C3. Specialised staff and professionals**

Eight of the included studies [21,23–26,31–33] referred to specialised staff [21,23,24,26,31–33] and their provision of knowledge about disabilities [23,26,31,32], services [23,26,31], activities [21,23,24,26,31,32], and disability rights [23] as being an important element that enhanced participation in the programs. The competence of the staff was crucial to the quality and delivery of the programs. By acting as a source of information and reassurance, providing task-specific feedback, and supporting appropriate risk-taking in accordance with individual participants' needs (P3), the staff ensured that the programs supported experiences of safety (M3) and independence (ADO1) [24,26,31–33].

Three of the programs actively used peer-instructors [21,23,32]; these instructors were viewed as inspirational by participants not only because they were able to more authentically demonstrate their skills (M2) but also because they actively shared their experiences of living with a disability (ADO1–3).

### **C4. Time**

In seven studies, various positive aspects and experiences of time were mentioned [24–27,31–33]. Participants viewed both local and residential programs as a break from everyday life and an opportunity to leave everything aside to have fun and focus on themselves (PO4) [24–27]. The programs provided time for participants to feel comfortable and secure about getting involved and time for them to learn at their own pace (P3) [25,32,33]. All three studies exploring intervention programs [31–33] and one examining summer camps [26] highlighted that intensive learning processes that included sufficient time for repeat exposure to activities in a safe environment can potentially accelerate skill development (M3, P2).

### **Social interactional mechanisms**

In all included studies [21–33], dynamic interactional participation processes were described as important, and participants valued being able to share their experience of living with a disability. This was related to three categories: (M1) Inclusive community, (M2) Relatable role models, and (M3) Sense of safety.

### ***M1. Inclusive community***

Being part of an inclusive community of peers was identified by all studies [21–33] as an essential mechanism enabling diverse, meaningful experiences and a crucial dimension of the programs. The shared experience of living with a disability helped participants form an emotional connection and group identity [22–27,30,32,33] based on mutual respect [21,22,24,25,27–33] and understanding [21,23,25–33]. It also engendered a willingness to reach out and see beyond the disability [21–33].

Being believed in, supported, and encouraged by understanding peers was identified in all studies as essential to establishing a safe (M3) and motivating context (P3) for pursuing challenges (P2) [21–33].

### ***M2. Relatable role models***

In all studies, participating in programs together with relatable peer role models was a social mechanism that provided meaningful and valued experiences [21–33]. Peers who shared the experience of living with disability were an important source of knowledge about all aspects of life (P2). Participants also shared information related to disability culture, including language and humour, and mentored each other regarding education, work, life goals, opportunities, and more private matters (ADO2, ADO3) [21–23,26–33].

Participation in programs alongside relatable peers was described as inspirational; watching and listening to others and learning together (M2, P2) increased participants' motivation to get involved and try new things (P3) and were directly linked to increased self-reflection (ADO1) [23,26,31,32].

### ***M3. Sense of safety***

In 12 studies, the experience of safety was an essential social mechanism in the program context. Participants experienced the programs as safe and homelike, with the group being like a big family [21,23–33]. Participants described the program as a separate zone or a world of its own, free of stigma, judgement, and discrimination (M1, E1) [24–31].

The use of personalised activity challenges, which were adjusted to individual needs and preferences (C3) and were not subject to time pressure (C4) [23,25–28,31–33], made participants feel that they were engaged in safe learning processes; they felt comfortable and confident about getting involved, conquering their fears and facing challenges (P3) [21,23,25–28,31–33].

## ***Internal personal participation processes***

Participants in all studies described how participating in recreational, physical, and social activities made them aware of significant internal processes related to the regulation of engagement, capacity for exploration, and self-understanding [21–33]. These experiences represented three categories: (P1) Belonging, (P2) Learning and Exploring Abilities, and (P3) Courage and Motivation for Engagement.

### ***P1. Belonging***

In all studies, a feeling of belonging was seen as an essential internal process, expressed through participants' experiences of safety and personal engagement in the programs. Participants experienced comfort through the recognition that they were not alone in their experiences (M1), allowing them to form trusting relationships with peers and staff (M3). This, in turn, allowed them to share their experiences and concerns with each other (P2) [21–33]. The feeling of being a valued and accepted member of a team and being met with mutual expectations and responsibilities increased participants' motivation to engage in activities (P3) and interact with and mentor each other (M2) [22,24–26,28,29,31–33].

### ***P2. Learning and exploring abilities***

The experience of exploring one's potential and abilities was described as a meaningful learning process in all studies [21–33]. This encompassed not only the practice and acquisition of activity-related, functional, or social skills but also the internal process of increasing self-awareness.

Staff and peers sharing knowledge about disabilities, equipment, and activity adaptations supported participants' engagement in desired activities (P2) [21,22,24–33]. Being recognised by others for their existing skill levels and engagement enabled participants to feel involved and to develop the courage to test their abilities and pursue challenges (M1, P3) [21,23,24,26–33]. Increasing their understanding of themselves and others by comparing similarities and differences during activity participation and the exchange of life experiences raised participants' self-awareness and inspired them to continue to explore participating in activities in other contexts (M2, ADO1–3) [21,23,25–33].

### ***P3. Courage and motivation for engagement***

Participants in nine studies expressed an understanding of the need to actively engage in activities to test their ability to participate as an important internal

process of acceptance of self and resilience (P2, PO2, ADO1) [21,23,25–27,29,31–33]. Friendly, positive peer pressure and support from peers and staff were experienced as important social mechanisms when mobilising personal courage to face challenges (M1, M2, P3) [21,23,25,27,31–33]. Seeing other group members participate in an activity was inspirational and helped participants feel less alone in their experiences, increasing their motivation and courage to engage and push their limits (M1, M2, P1, P3) [21,26,27,29,32,33].

### **Processual outcomes**

In all studies, participants described valuable experiences as both an important outcome of participation in the program and an influence on internal processes regulating motivation and engagement in continued participation in the program [21–33]. These experiences represented four categories: (PO1) Freedom, (PO2) Mastery Experiences and Increased Competence, (PO3) Friends and Social Networks, and (PO4) Enjoyment.

#### **P1. Freedom**

In all studies, participants expressed how taking part in the program was related to the experience of freedom [21–33]. The most common concept of freedom was the participants' feeling of truly being themselves without the constraints of having a disability or feeling pressured to comply with mainstream norms of appearance, behaviour or culture (P1, E1). Participants expressed feelings of freedom, of being more aware of their body, and being in control of their activities (PO2, ADO1) [21,22,24–31,33]. Some experienced a sense of normalcy when given the opportunity to participate in physical activities and sports like their peers without disabilities (ADO2) [22,23,26–30]. Taking part in activities allowed participants to perform valued social roles such as athlete, musician, or team-mate (ADO3).

Exercising freedom of choice was important for many participants, both when it came to forming goals and choosing activities and in terms of being heard during activities. Being encouraged to identify solutions, share opinions, and take responsibility for the consequences of their actions was experienced as motivating and highly valued (P2, P3) [22,24–26,28–33]. Being free of overprotective families and having the opportunity to be independent were, for some participants, important aspects of residential programs (E1) [24,27]. For participants in local

programs, the activities were experienced as a means of freely expressing themselves, either through sports, where it is socially acceptable to express anger or be aggressive [28–30], or through music, where several kinds of feelings can be more easily communicated (ADO3) [25].

When participants sensed that they had acquired sufficient skills and confidence to perform in front of or alongside peers with and without disabilities (PO2, ADO2), those performances were a way to demonstrate talent, perform valued social roles as musicians or athletes, and feel admired. This provided participants with the freedom to actively challenge stereotypes towards people with disabilities (ADO3) [22,25,26,28–30,33].

#### **PO2. Mastery experiences and increased competence**

Experiences of mastery and success in activities were consistently described as meaningful outcomes and motivations for further engagement, both in the activity itself and in other activities and challenges (P3) [21–33]. Having positive experiences of their own performance and skill development increased participants' understanding of their abilities and belief in their strengths (ADO1) [21–33]. For participants in most studies, being involved in an activity led to the development of increased self-efficacy and empowerment [21–32].

Feeling valued as a team player and belonging to a group helped participants to increase their social skills and understanding of others' difficulties and strengths as well as enhanced their ability to comfortably engage in social situations outside the program (P1, M1, ADO2, ADO3) [21,24–26,28–30,33].

#### **PO3. Friends and social network**

In addition to the significant experience of feeling part of a community (P1, M1), 10 studies highlighted friendship as an important mechanism in increasing participants' motivation to engage in program activities (P3). Friendship was also an outcome of program participation, continuing and growing beyond the end of the programs [21–24,26–30,33]. In three studies, participants described the comfort of gaining a secure social network of understanding peers from whom they could seek advice, guidance, and support when managing diverse challenges (ADO2, ADO3) [29,30,33].

#### **PO4. Enjoyment**

Having fun was identified in nine studies as an essential outcome of having meaningful participation experiences [21,24–30,33] and was an important



component in forming motivation for further engagement (P3) [21,24,26–30,33]. Partaking in activities also made participants feel more positive and engaged, with some describing it as the highlight of their lives [24,25,28,29].

### ***Adaptive developmental outcomes of program participation***

All studies described how participants' experiences of program participation led to personal development, autonomy, and confidence to engage and navigate society in new ways [21–33]. These experiences were related to three categories: (ADO1) Increased Understanding of Self, (ADO2) New Perspectives and Motivation for Engagement, and (ADO3) Abilities to Navigate.

#### ***ADO1. Increased understanding of self***

All studies described how participating in the programs provided participants with meaningful experiences and a better understanding of themselves [21–33]. These experiences helped participants understand their potential and empowered them to feel responsible for their participation, strive to accomplish more, be the author of their own identity, and increase their independence (P2, PO2, ADO1, ADO2) [21,22,24–29,31–33].

Sharing the experience of living with a disability with peers helped participants not only accept their disability as a part of life and feel comfortable about themselves, but also understand that the disability was not their entire identity (P1, ADO1) [21,23,26–28,31–33]. Learning about the insider language, humour, and culture of groups with different disabilities and exchanging support and advice with peers provided participants with the tools to manage their lives, change destructive habits, exercise agency over their minds and bodies, and build resilience (M1, M2, ADO1, ADO3) [21,23–33].

#### ***ADO2. New perspectives and motivation for future engagement***

In all studies, the combination of experiencing mastery, gaining an increased understanding of themselves and their abilities, and having access to opportunities provided participants with a new perspective on the future (C1, P2, PO2, ADO1, ADO2) [21–29,31,33]. Participants gained the confidence and motivation to negotiate and overcome barriers and try new things in their local communities, including participating in activities with peers without

disabilities and navigating unfamiliar environments, such as going to university or moving out of the family home (P3, PO2, ADO2, ADO3) [21,23,26–32].

#### ***ADO3. Abilities to navigate society***

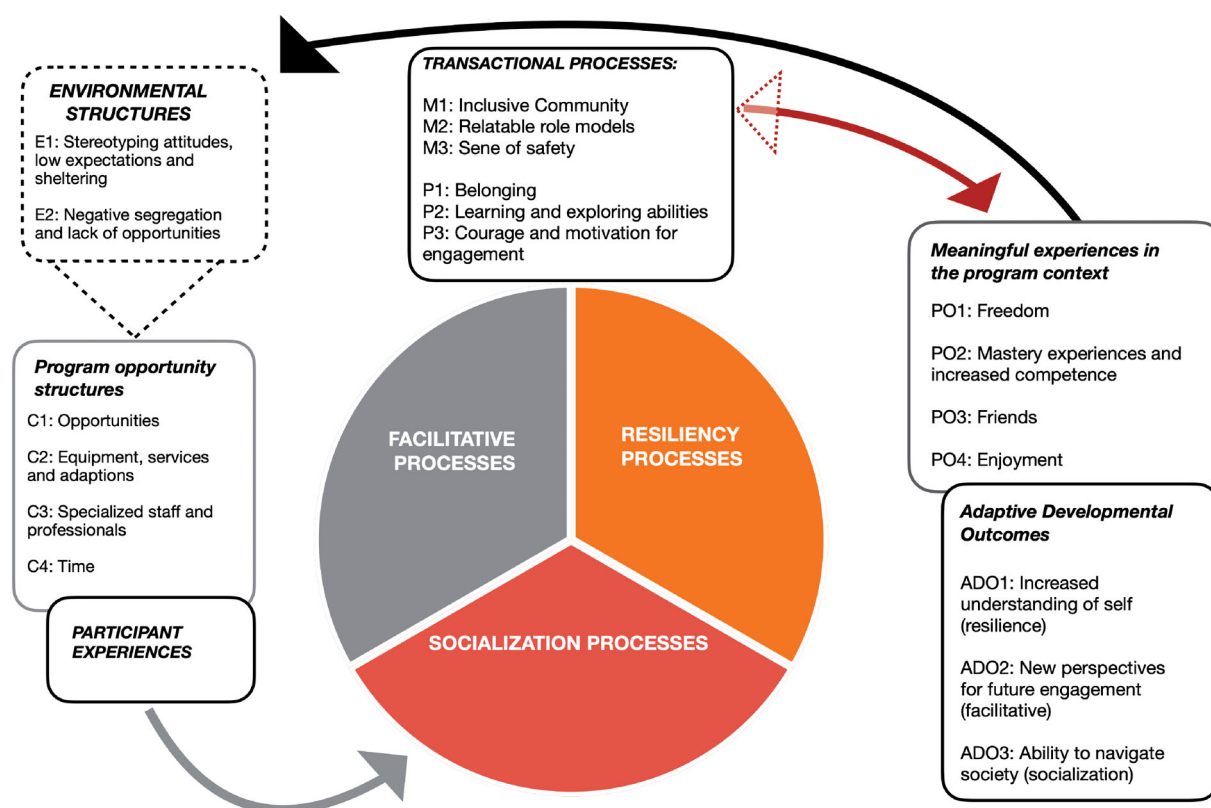
In 11 studies, participants described how the experience of program participation gave them a desire to change the way they engaged with society [21–26,28–32]. Exchanging lived experiences with peers regarding the environment outside the program provided them with knowledge and new ideas for dealing with challenges and stigma (M1, M2) [21–24,26,28]. It also gave them confidence and an understanding of how to advocate for themselves and ask for help (PO2, ADO1) [23,29,31,32]. Some participants expressed a desire to use their increased skills and knowledge to challenge traditional attitudes and raise societal awareness of the challenges of living with a disability (E1) [21,22,26,28–30]. In four studies, the contrast between the number of opportunities available within the program and the dearth of opportunities, services, and facilities outside the program increased participants' feelings of exclusion and segregation, which reinforced feelings of inequality (E2) [21,26,27,31].

### ***Discussion***

The results of this scoping review demonstrate how group-based programs for young people with disabilities consist of multiple transactional processes between opportunities and resources in the situated context, with both social mechanisms and individual processes contributing to adaptive developmental outcomes. This review highlights the significant contribution of the situated and social context in forming meaningful personal experiences, processes, and outcomes for participants in such programs. This was evident in the way the young people described the programs as forming safe contexts with unique qualities, social values, and opportunities, resulting in a feeling of freedom from physical, social, and environmental constraints. The freedom experienced within the programs allowed the young people to explore and express themselves in multiple ways, including by challenging their physical capacities and gaining a better understanding of their abilities to regulate and impact the situated context through their engagement in activities and with others.

This scoping review employed a transactional framework [5] to synthesise the literature and adopted an understanding of participation as a dynamic and





**Figure 3.** Interplay of environmental structures, program opportunities and resources, social mechanisms, personal processes, meaningful experiences, and outcomes of participation.

transactional process resulting in valuable outcomes such as capacity building and the development of adaptive strategies for navigating and negotiating external contexts [5,13,14]. Figure 3 emphasises that the categories identified in this review are not mutually exclusive but rather highly interdependent. This was evident in the way the categories supported, influenced, and depended on each other, forming a dynamic participation process that triggered developmental processes. For example, the young people's experience of belonging to an accepting community not only provided the emotional safety necessary for gaining the courage to engage in activities but also required personal engagement with peers, based on the mutual responsibility needed for group functioning. The opportunity to engage in mutually supportive and inspirational relationships with other young people with disabilities played a key role in increased personal engagement, self-reflection, exploration of capacity, and the development of adaptive strategies. Thus, although participation in physical and recreational activities allows young people with disabilities to explore their capacity and gain positive experiences of self, the results suggest that sharing the experience with others is a key trigger mechanism for the development of adaptive strategies.

Traditionally, rehabilitation programs have focussed on capacity development through the strengthening of skills, competencies, and personal abilities [5]. An increased focus on learning from participation experiences can result in more meaningful engagement, leading to capacity building, increased personal resilience, and the development of abilities to adapt to, navigate, and negotiate adversity by adjusting to diverse contexts [5,13]. Our review supports this notion by demonstrating how participation in adapted programs led to a variety of personal learning processes and outcomes which, in addition to strengthening the young people's skills and competencies, also led to the development of adaptive strategies. The sense of safe and supportive program contexts provided the young people with the opportunity, time, and perceived freedom and safety to engage, make choices, and take risks. Fully engaging in activities, including accepting the risk of failure, was described by several participants as a welcome experience, in contrast to the common feeling of being sheltered from negative encounters and failures. Sharing the experience of living with a disability and learning together with peers added an essential element of self-reflection to the participation process.

Sense of community is known to play an essential role in determining the quality of social relations and support dynamics and is also relevant at a system level in terms of experiences of the contextual setting as a dynamic whole [10,34]. This review further supports the idea that group-based programs have the potential to facilitate strong communities, offering positive ways for participants to interact and granting opportunities to influence the program through engagement in activities and communication with others. Such actions enable participants to explore themselves, supporting the understanding of community as presented by McMillan [10].

The health care interventions and recreational and physical programs in the included studies were described by participants as representing a separate world, a break from everyday life, and a place to manage challenges and experiences that were difficult for peers and family members without disabilities to understand. The opportunity to exchange experiences, compare similarities and differences with relatable role models, and act as mentors for each other was equally valued. This is consistent with the existing literature; while specialised staff members are highly competent and supportive, they often do not share the experience of living with a disability, creating a disconnection between themselves and the participants [5,26,32]. Peer groups play a key role when it comes to integrating the world of the program with everyday life; peers represent lived knowledge and experience and provide participants with linguistic resources that can help normalise the experience of living with a disability [32].

The value of participating in activities alongside peers was emphasised extensively by the young people with disabilities throughout all the included studies. The outcomes of this review add to the understanding of participation as a learning process, in which transactional relations among contextual opportunity structures, social mechanisms, and personal processes can form adaptive developmental outcomes that operate across contexts. The results of this review suggest that peer groups in participation-based programs play an important and potentially irreplaceable role in the development of adaptive strategies. They are essential in translating therapeutic knowledge into everyday life, and they support participants in forming strategies for managing challenges and navigating varying contexts. Therefore, the importance of peer groups should be considered when planning and delivering participation-focussed programs for young people with disabilities.

The meta-synthesis approach adopted in this paper enabled us to identify gaps in the current understanding of the transactional relationship between the situated context and personal participation processes. Ten of the studies analysed were conducted in North America, two were in Norway, and one was in Chile. Young people with disabilities from other cultural backgrounds may have different values and perspectives regarding participation, support, and relationships. All participation contexts demonstrated similar results in the identified categories, but overall, there is limited literature on the impact of peer groups on personal participation processes and the development of adaptive strategies in settings involving young people with disabilities. Concerning the impact of age on participants' outcomes, there were more similarities than differences across the entire age span (9–76 years) in the included studies. However, further research is needed to identify more age-specific needs, experiences, and outcomes.

## Limitations

There are limitations associated with this study. To incorporate as many voices as possible, we chose to include all identified studies that met the inclusion criterias, as long as they contained valuable information regarding participants' experiences with the peer group, even when some participants in the studies exceeded the desired age range. Not including an in-depth assessment of quality of the included studies as part of the process meant that the categories and themes identified in this paper are limited by the rigour and calibre of the original studies. All identified studies contained data that contributed to our understanding of participants' experiences as outlined in the aims of the study, and other authors who initially performed quality assessments within qualitative scoping studies ultimately included all eligible studies regardless of quality [9,35]. There may also be articles in other languages that we have missed.

Qualitative research provides an in-depth understanding of a particular phenomenon, and there are limitations to its ability to produce generalisable findings, even when using a scoping method to synthesize existing knowledge [9]. There are also limitations associated with analysing secondary data. To maximise the amount of available data, we coded both direct quotes from the participants and analytical text written by the researchers and used inferences to identify relationships between codes across studies. Given that we did not discuss our findings with

stakeholders, the results presented reflect only the assumptions and perspectives of this research team, influenced by the perspectives of the original researchers. However, using multiple coders allowed for diverse interpretations to emerge, with credibility being given to concepts identified by all members of the research team, provided those concepts were firmly grounded in the data.

## Conclusion

The participation of young people with disabilities in group-based programs is a dynamic and transactional process that leads to a variety of valuable outcomes, such as capacity building and the development of adaptive strategies, all of which are relevant to navigating and negotiating contexts outside the programs. The situated and social context of the programs had an important impact on the formation of meaningful personal experiences, processes, and outcomes. The programs acted as safe contexts, free of physical, social, and environmental constraints, empowering participants to explore and express themselves in multiple ways. The freedom of participating in programs with their peers challenged participants' physical capacities and improved their understanding of their ability to regulate their environment when taking part in activities and interacting with others.

The peer groups that formed within the programs were essential in transferring program experiences to the young people's everyday lives. The programs helped the young people to form strategies for handling difficult events and navigating and negotiating self in varying contexts.

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