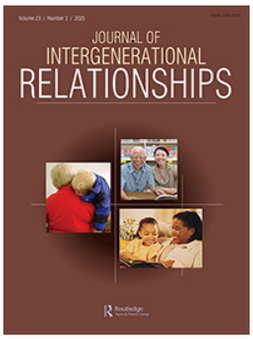

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Shared Site Intergenerational Care Programs with Older Adults and Young Children: A Scoping Review

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ABSTRACT

Shared site intergenerational care programs (SSICPs) integrate care services for old and young generations in co-located contexts. A common form combines residential aged care and childcare services within a single site that is home to older adults and contains a childcare center. At present, SSICPs are under-researched and under-developed. Consequently, the aim of this scoping review is to review evidence on this type of SSICP, informing their future development. Nine articles met the inclusion criteria, and were analyzed with narrative synthesis and tabulation. Findings reveal benefits plus practices and principles underlying the establishment of SSICPs. While more research is needed to confirm outcomes and best practice, and examine possibilities beyond developed countries, this review demonstrates the potential of SSICPs as a viable model of care for older people and young children, and provides guidelines toward their development and implementation.

KEYWORDS

Intergenerational programs; shared sites; aged care; childcare; scoping review

Introduction

Intergenerational programming has emerged in response to contemporary generational isolation and segregation, the aging population, negative attitudes about aging and older people, and the challenge of providing quality care to both old and young people. Among their objectives, intergenerational programs (IPs) aim to bring generations together to engage in mutually beneficial activities (Cartmel et al., 2018) and to promote knowledge exchange, lifelong learning, respect, and understanding (Airey & Smart, 2015; Cartmel et al., 2018; Golenko et al., 2020), thereby targeting societal ageism and building more inclusive communities (Airey & Smart, 2015; Golenko et al., 2020).[1] Originating in the United States (US) in the 1960s (Ruggiano, 2010),[2] IPs are today conducted with varying populations and in different contexts. IPs may involve school children (Cohen-Mansfield & Jensen, 2017), people with

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dementia (PWD) (Gigliotti et al., 2005), or university students (Hernandez & Gonzalez, 2008), with focuses ranging from education (Cartmel et al., 2019) to the arts (Rubin et al., 2015), and can take place in community halls (Kenning et al., 2021) and senior centers (Dreibelbis & George, 2017).

There are different IP models that delineate the location and nature of programming and activities. The *visitation model* involves separately located childcare centers, schools, or universities, and aged care facilities or adult day care centers, and the transportation of participants from one location to another (Hamilton et al., 1999). Another variation is the *immersion model*, which involves intensive intergenerational connection and exchange within a specific time period, and the immersion of one population into the other (Carson et al., 2011).

In contrast, the *shared site model* involves programs conducted in co-located and designated intergenerational shared spaces (Goyer & Zuses, 1998; Hatton-Yeo & Melville, 2013; Radford et al., 2018). Shared site IPs have been defined as "programs in which multiple generations receive ongoing services and/or programming at the same site, and generally interact through planned and/or informal intergenerational activities" (Goyer & Zuses, 1998, p. v).

A common form of shared site IP provides care services, defined as "a specific type of program that involves the caring of older and younger people in a shared setting under the supervision of a formally trained caregiver" (Radford et al., 2018, p. 303). This *shared site intergenerational care program* (SSICP) model originated in the US, with a 1998 national survey identifying 281 programs and 72 distinct program models, the most common being the nursing home/childcare center model, followed by the adult day care center/childcare center model (Goyer & Zuses, 1998). A recent survey replication found the most common SSICP involves children under the age of five, through childcare or preschool services, paired with adult day care services, followed by assisted living, nursing homes, independent senior housing, short-term rehabilitation, and senior centers (Jarrott, 2019, p. 5). While SSICPs are most visible in the US, the integration of care services for young and old generations within designated and purpose-built intergenerational shared spaces is relatively new elsewhere, such as Australia (Radford et al., 2016) and the United Kingdom (Melville & Bernard, 2011). However, this "common sense" (Generations United & The Eisner Foundation, 2018, p. 1) model of care has multiple benefits (Radford et al., 2018) and is responsive to "changing economic, demographic, and social pressures [which] have increased the need for alternative funding and program approaches in both aged care and child-care" (Cartmel et al., 2018, p. 65).

Since the 1990s, there has been a call for increased research on IPs (Bernard, 2006, Cohen-Mansfield & Jensen, 2017; Ward, 1997). In a foundational review of shared site IP research, Kuehne and Kaplan (2001) described the existing literature as vague and fragmented, and

the dearth of planning guidance material has also been noted (Goyer, 2001; Hayes, 2003). More recently, Weeks et al. (2020) have noted there is scant robust research on the SSICP model, and in her discussion about "the expansion of intergenerational shared sites," Melville (2014) notes that "the nature and implications of the settings in which intergenerational activities may take place remains relatively neglected" (p. 295).

The objective of this scoping review is to examine the landscape of research on the specific type of SSICP that integrates childcare and residential aged care (RAC) services in co-located shared site contexts. These SSICPs occur in residential or long-term aged care facilities, that are home to the older generation and where they live permanently, and which contain a co-located purpose-built childcare center on the same site (McKee & Scheffel, 2019). Within this shared space context, both generations participate in ongoing services and programming, and interact during scheduled intergenerational activities and informal encounters (Goyer, 2001). The aim of the review is to map the literature about this shared site RAC/childcare center model of intergenerational care, so as to contribute to the evidence base on this model and its outcomes, and inform its future development and implementation.

A preliminary search of databases (PROSPERO, MEDLINE, Cochrane Database of Systematic Reviews, JBI Evidence Synthesis) was conducted in August 2021 and no current or in-progress scoping reviews or systematic reviews examining RAC/childcare center SSICPs published in English (due to the authors' language restrictions) were identified. Apart from Kuehne and Kaplan's (2001) non-peer-reviewed review conducted over 20 years ago, and a systematic review by Radford et al. (2018), which does examine some shared site studies but none within the parameters of this scoping review, no existing reviews focus on SSICPs conducted with older people living in RAC and young children receiving childcare. This scoping review addresses this research gap.

Method

This scoping review was conducted in accordance with an a priori protocol[3] and guided by the Arksey and O'Malley (2005) framework, as developed by the JBI methodology (Peters et al., 2020), and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR) (Tricco et al., 2018). Following the formation of the research questions, the PCC (Participants, Concept, Context) framework was used to construct the inclusion criteria, and four methodological steps were followed: (1) identifying relevant studies, (2) selecting studies, (3) extracting and tabulating data, and (4) narratively describing and summarizing data.

Identifying the research questions

With the objective to examine the research landscape concerning SSICPs, the research questions of this review are:

(1) What research has been conducted on intergenerational care programs implemented within shared site contexts where RAC facilities and services are co-located with childcare centers and services?
(2) What does this research reveal about the outcomes of these programs for participants, specifically older people (aged 65+) receiving RAC services and young children (aged 6 and below) receiving childcare services?
(3) What does this research reveal about what is required in developing and implementing this type of SSICP?

Inclusion criteria

Participants

Studies of older people aged 65 and over living in RAC facilities and young children aged six and under[4] receiving childcare services[5] were considered. Research on older cohorts of children, including school-aged (6+), tertiary students (18+), or young adults, was excluded.

Concept

The concept of interest is intergenerational programs of care that integrate RAC and childcare services in co-located shared site contexts, as defined above as shared site intergenerational care programs (SSICPs), where both generations connect, interact, and engage in mutually beneficial planned and/or informal activities and exchange, and receive care services, under the supervision of formally trained caregivers.

Regarding the "polysemic" (Newman & Sánchez, 2007, p. 36) concept of generation, this paper adheres to its demographic definition as a group of people born during a certain historical location (Alwin & McCammon, 2007), as an age group (Newman & Sánchez, 2007) or a "chronologically defined cohort in a population structure" (Purhonen, 2016, p. 168). This is in contrast to other definitions of generation, including genealogical, referring to family relations, parentage and kinship (e.g. Bengtson, 2001); sociohistorical, regarding people with shared experiences that construct social, cultural or political identities (e.g. Mannheim, 1952); economic, concerning people of the same age and style of consumption (e.g. Scabini & Marta, 2006); or pedagogical, referring to intergenerational learning (e.g. Schmidt-Hertha, 2014).

Context

Studies examining intergenerational care programs that integrate RAC facilities and services with childcare centers and services, as defined above as SSICPs, were considered. SSICP studies involving any context where older people do not live permanently (i.e. adult day care or respite care centers) were excluded, as was literature concerning other IP models (i.e. visitation or immersion models).

Types of sources

Considering the aim of this review to map the academic literature about a specific type of SSICP, to establish the current evidence base, and outline the best approach to development and implementation, the search focused on peer-reviewed research study papers of any kind for consideration. Consequently, non-peer-reviewed grey literature was excluded, as were opinion pieces and review protocols.

Identifying the relevant studies

An initial limited search of CINAHL and SCOPUS was undertaken in September 2021. The text words in titles, abstracts, and index terms of relevant papers were used to develop a full search strategy. The search strategy, including all identified keywords and index terms, was adapted for each of the eight databases used (MEDLINE, Embase, CINAHL, ERIC, PsycINFO, SCOPUS, ProQuest Health & Medicine, PubMed) and a second search was undertaken in November 2021. Studies published in English (due to the authors' language restrictions) from 1997 onwards were included, accounting for Kuehne and Kaplan's (2001) review, which covers research prior to 2001. The reference lists of papers selected for review were screened for additional papers. Full search strategies for each database are provided in Appendix I (Supplementary Material).

Study selection

All records identified from database searches were uploaded into EndNote 20 and duplicates removed. Titles and abstracts were screened by two independent reviewers for assessment against the inclusion criteria. Full texts of potentially eligible studies were retrieved and assessed against the inclusion criteria by the two reviewers. Full-text studies that did not meet the inclusion criteria were excluded. Any disagreements between the reviewers were resolved through discussion. See Appendix II (Supplemental Material) for a full list of the 110 articles excluded during the search, with reasons for exclusion.

Extracting, tabulating, and summarizing the data

Data were extracted by two independent reviewers using a data extraction tool based on the JBI methodology for scoping reviews (Peters et al., 2020) and developed specifically for this review, as suggested by Arksey and O'Malley (2005) (see Appendix III, Supplementary Material). Any disagreements between the reviewers were resolved through discussion. The extracted data are presented in tabular form (see Table 1) with narrative summary.

Results

From database searches, 304 potential papers emerged, reducing to 118 after 134 duplicates and 52 ineligible studies (wrong study type) were removed. Following title and abstract screening of the 118 papers, 90 were excluded as ineligible (child participants were aged 6+, studies were not conducted in shared site contexts). Following full-text review of the remaining 28 papers, 20 were deemed ineligible (shared site contexts combined childcare services with non-RAC settings). The reference lists of the remaining papers were screened and one paper was added, resulting in nine papers for inclusion in the review. Figure 1 presents the PRISMA-ScR diagram of search results, article selection, and inclusion process.

Characteristics of included studies

Table 1 provides details of data extracted from the nine papers reviewed. These details provide an answer to this review's first research question on the scope of research that has been conducted on intergenerational care programs implemented within shared site contexts where RAC facilities and services are co-located with childcare centers and services.

Published between 1997 and 2020, most studies took place in the US (Camp et al., 1997; Doll & Bolender, 2010; Heydon, 2005, 2007; Holmes, 2009; Janke et al., 2019; Lee et al., 2007), with one from Canada (Weeks et al., 2020) and another from Australia (Low et al., 2015). Fields of research include three studies from intergenerational studies (Doll & Bolender, 2010; Low et al., 2015; Weeks et al., 2020), three from early childhood learning and pedagogy (Heydon, 2005, 2007; Holmes, 2009), two from aging studies and gerontology (Camp et al., 1997; Lee et al., 2007), and one from therapeutic recreation studies (Janke et al., 2019). This disciplinary range reflects the disparity in sample focus. Two studies examine outcomes for both adults and children (Holmes, 2009; Low et al., 2015), while five examine benefits for adults only (Camp et al., 1997; Doll & Bolender, 2010; Janke et al., 2019; Lee et al., 2007; Weeks et al., 2020), and two examine benefits for children only (Heydon, 2005, 2007).

Table 1. Characteristics of studies reviewed.

Author(s), Year, Location	Aims, Field of Research	Method	Participants, Setting	Results	Findings Relevant to the Research Questions
Camp et al. (1997) US	• To determine if PWD can teach Montessori-based learning to preschool children and if apathy (disengagement from social and physical environment) could be reduced by participation in the SSICP • Aging studies, gerontology	Theory-based, randomized control trial pilot intervention and observational case study • Weekly sessions • 30-45 mins each • Over 75 sessions • Quantitative assessment of older adults • Behavioral observations • Presented with 7 Montessori-based tasks	***Participants:*** PWD ($n = 12$) • Age: 70-96 years (median age 88) • Female: $n = 10$ • Living in dementia special care unit of long-term care facility: $n = 9$ • Attending adult day care: $n = 3$ Children ($n = 14$) • Age: 2.5-4 years • Female: $n = 8$ ***Setting:*** • Co-located aged care facility and childcare center for employees of the long-term care facility and another nearby	• Average number of lessons successfully taught by the end of the program = 22.3 (range: 10-39) • Number of successfully taught lessons increased over the course of the study as adults and children became familiar with the teaching format and each other • Compared to high levels of apathy and disengagement during regular non-IG context, no instances of disengagement observed during Montessori lessons	***Outcomes:*** • Benefits for PWD: can be teachers/mentors in structured settings; displays of care and patience; positive outcomes including enjoyment, pride; can positively shift perception of PWD and their capabilities • Benefits for children also – enjoyment and pride in knowledge and skills, appreciation of individual attention ***Program Development and Implementation:*** • Discussion of development and implementation of SSICPs specifically for older PWD • Montessori method useful theory and means for conducting SSICPs for PWD • Importance of choosing participants carefully, preparing participants, structured activities that are meaningful to both generations

(*Continued*)

Table 1. (Continued).

Author(s), Year, Location	Aims, Field of Research	Method	Participants, Setting	Results	Findings Relevant to the Research Questions
Doll and Bolender (2010) US	• To measure health, psychological and social benefits of full day SSICP (*Age to Age*) • Intergenerational studies	Quasi-experimental intervention, non-randomized trial, observational study with focus groups • Mixed methods • MDS data collected before and after the program • Observation on 3 full days – at the beginning, during and end of the school year • Activities including active participation in physical exercise, reading, dining, special events and passive participation through observation of classroom, children in playground, interaction between students and residents • Focus groups with staff and residents • Scales: MDS (mood, ADLs, pain frequency and intensity, weight, number of medications)	***Participants:*** Residents of nursing home highly involved w children ($n = 21$) • Age: 84.98 years • Female: $n = 17$ Residents of nursing home who did not interact with children on regular basis i.e. control group ($n = 21$) • Age: 83.88 • Female: $n = 17$ Kindergarten students (aged 6 and under) ***Setting:*** • Nursing home with an on-site kindergarten classroom	• Quantitative analysis revealed no significant improvement between intervention and control group re MDS data on pain, ADLs, mood, weight – explained in relation to small sample size, limited variables, and lack of randomization • Observation and focus groups revealed mood enhancement, health improvements, increased activity levels, and increased sense of worthiness and value	***Outcomes:*** • Benefits for older people: mood enhancement, health improvements, increased activity levels, increased sense of worthiness and value • Discusses importance of roles for older people, aging being a time when roles are lost, new role for participants as "grandparent" has meaningful outcomes and benefits • Suggests benefit of SSICPs for organizations wanting to attract staff and residents, and for rural or isolated communities where children may need to travel long distances for care/school ***Program Development and Implementation:*** • Discusses importance of collaboration and dialogue between all involved in program development, especially local authorities; successful elements of IG space design; importance of empowering young and old, understanding basic values, facilitating self-determination, and allowing participant input into program design rather than it being imposed

(*Continued*)

Table 1. (Continued).

Author(s), Year, Location	Aims, Field of Research	Method	Participants, Setting	Results	Findings Relevant to the Research Questions
Heydon (2005) US	• To determine types of learning opportunities for participants of an IG art program (*Art at the Mount*), determine type of exchanges (physical, social, pedagogical) between participants, and how exchanges build individual and communal capacities, and identify work done to make the program possible and how the work met participants' needs • Early childhood learning and pedagogy	Observational naturalistic field study with postmodern critical theory, videos, and interviews with coding and qualitative analysis • 5 weeks of IG art classes videotaped • Field notes of observations and informal discussions with participants before and after classes • Semi-structured interviews with residents, program staff, qualitative analysis • Video and audio data transcribed and coded for predictive themes related to research questions	***Participants:*** Adults ($n = 16$) • Age: 31-96 years (median age 85) • Female: $n = 13$ Children ($n = 25$) • Age: 3-5 years • Female: $n = 16$ Art teacher: $n = 1$ ILC teacher: $n = 2$ ILC supervisor: $n = 1$ Recreation therapist: $n = 2$ Volunteers: $n = 2$ ***Setting:*** • Co-located child and long-term care facility for elders and younger adults with disabilities	• IG art classes provided opportunities for participants to demonstrate what they could do and learn, plus facilitated communication and community building • Qualitative analysis of video and interviews revealed elements of the SSICP that fostered community, repositioned children, and old people as the norm rather than social marginalized and deficient • IG art as a means of empowering vulnerable people	• IG learning focus • IG art programs ***Outcomes:*** • SSICPs as "de-pathologizing" childhood and aging • Social benefits for children and older people: empowerment and agency through IG learning and communication, expressing individual strengths and contributing to each other; artistic expression as authentic self-expression; IG exchange fostered community, collective problem solving ***Program Development and Implementation:*** • Discussion of development and implementation of SSICPs, especially art programs, and IG community building • Describes SSICPs as "positively radical" and the IG art program as a "radical curriculum" • Lists elements for SSICP success – importance of orientation of participants and staff, normalization of aging and health/disability equipment, safety, community building, overcoming bias, collective problem solving, flexibility re participation, self-determination, accommodation of physical needs, alternating location of class to reduce participation barriers, equal treatment of both generations, role of staff in modeling cooperative behavior and inclusivism

(*Continued*)

Table 1. (Continued).

Author(s), Year, Location	Aims, Field of Research	Method	Participants, Setting	Results	Findings Relevant to the Research Questions
Heydon (2007) US *(NB. Same study context as Heydon, 2005, above)*	• To identify language and literacy learning opportunities in an IG art program (*Art in the Neighborhood*), and determine conditions necessary to bring these opportunities about • Early childhood learning and pedagogy	Observational naturalistic comparative field study with semi-structured interviews and qualitative analysis • Comparison of 2 IG art classes and 2 adult art classes • Classes videotaped, informal discussions with participants, observational field notes • Semi-structured interviews with residents and program staff • Video and audio data transcribed and coded for predictive themes related to research questions	***Participants:*** Adults ($n = 16$) • Age: 31-96 years (median age 85) • Female: $n = 13$ Children ($n = 25$) • Age: 3-5 years • Female: $n = 16$ Art teacher: $n = 1$ ILC teacher: $n = 2$ ILC supervisor: $n = 1$ Recreation therapist: $n = 2$ Volunteers: $n = 2$ ***Setting:*** • Co-located child and long-term care facility for elders and younger adults with disabilities	• Results examine interactions between children and older adults, show how children use sign systems to communicate meaning • Results show that IG factor in program enhanced semiotic opportunities	***Outcomes:*** • Discusses SSICPs as responsive to social, demographic, economic challenges, and lack of IG contact • How IG learning can develop academic skills in children, language, and literacy development • Examines IG collaboration, how it builds individual and communal capacities, and creates learning opportunities ***Program Development and Implementation:*** • Discusses elements of successful SSICPs and how they can be best organized – especially having institutional equipment to support daily living for young children, people with disabilities, older people; having a positive environment with nature, small animals; "ritual" of everyone reintroducing themselves; story-telling; collective problem solving; self-determination and flexibility re participation; accommodation of physical need; equal treatment of both generations, role of staff in modeling cooperative behavior and inclusivism; all treated equally

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Table 1. (Continued).

Author(s), Year, Location	Aims, Field of Research	Method	Participants, Setting	Results	Findings Relevant to the Research Questions
Holmes (2009) US	• To develop, implement and evaluate onsite IG program; to investigate changes in children's attitudes toward older people; and to describe development of program • Early childhood learning and pedagogy	Quasi-experimental before and after study with quantitative and qualitative data collection and analysis • Small group activities: 4-5 older people volunteers with ~ 10 preschool students and their teachers • Large group activities (monthly) e.g. singing, stories, puppetry with older people volunteers and other nursing home residents, children, teachers • Interviews with 38 children conducted by childcare worker during free play time • Interviews with older people • Questionnaire to families • Microanalysis of interview data to reveal each generation's perceptions of the other	***Participants:*** Adults who resided on-site nursing home facility • Age: >65 Children ($n = 38$) • Age: 3-5 years • Enrolled in childcare program ***Setting:*** • Nursing home located in the same building as childcare center	• SSICP promoted positive attitudes toward older people • Interviews with older people indicated benefits and perceptions of children • Family questionnaires revealed benefits for children and perceptions of older people • Evaluation of program revealed benefits for staff plus comprehensive outline re development and implementation, to be used as a guide	***Outcomes:*** • Positive outcomes for children and older adult volunteers: increase in positive perception of older people among children from 50% to 100% • Benefits for childcare staff and volunteer older people: saw older people in human roles; became educated about ageing; received support offered to staff morale; had a sense of purpose; were involved in innovative programming • Other benefits: sensory stimulation; meeting of special needs with individual attention; enhancement of basic human needs including self-acceptance, self-esteem, socialization, intellectual development

(*Continued*)

Table 1. (Continued).

Author(s), Year, Location	Aims, Field of Research	Method	Participants, Setting	Results	Findings Relevant to the Research Questions
					Program Development and Implementation: • Entire paper to be used as resource for developing and implementing successful SSICPs, comprehensive discussion and outline of process • Discusses explicit vs emergent models for curriculum design • Details specific steps of collaboration involved in program design and implementation including meeting of childcare and nursing teams to determine goals, standards of practice, program assessment and revision plan, potential concerns • Discusses importance of orientation for children, older people and staff, communication, importance of input from families, parental consent, flexible approach, gradual introduction of activities and IG exchange • Emphasizes that program replication depends on priorities, human and financial resources, leadership, and administrative support

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Table 1. (Continued).

Author(s), Year, Location	Aims, Field of Research	Method	Participants, Setting	Results	Findings Relevant to the Research Questions
Janke et al. (2019) US	• To determine relationship between type of engagement observed in SSICP and behavioral outcomes among PWD, and whether types of engagement and behavioral outcomes exhibited in SSICPs are associated with quality of life among PWD • Therapeutic recreation studies	Observational behavioral case study with quantitative data analysis • Structured activities (e.g. ball toss, stories, reading, draw and share pictures) for all residents at least twice a day Monday-Friday (25-75 mins) • Daily data collection for 5 days • Video recording of IG session to record engagement and behaviors • Menorah Park Engagement Scale (MPES) used to assess engagement and affective behavioral responses during sessions • Quality of Life in Dementia Scale (QUALID) to assess quality of life	***Participants:*** Adults in memory care units ($n = 15$) • Age: mean 86 years • Female: $n = 12$ Children • Age: 2 months-6 years ***Setting:*** • Long-term care facility with shared-site childcare program	• Significant, positive correlation (rs = .74, $p \leq .01$) between constructive engagement and pleasure • Significant correlation (rs = .76, $p \leq .001$) between constructive engagement and helping behaviors • Significant, negative correlation (rs = −.84, $p \leq .001$) between non-engagement and pleasure • Negative correlation between constructive engagement and non-engagement (rs = −.76, $p \leq .001$) • Helping behaviors significantly associated with non-engagement (rs = −.67, $p \leq .01$) • Individuals who showed more signs of pleasure during the program were also more likely to engage in helping behaviors during the program (rs = .64, $p \leq .01$) • Positive correlation between non-engagement and QoL (rs = .58, $p \leq .05$) • Negative correlation between pleasure and QoL (rs = −.68, $p \leq .01$)	***Outcomes:*** • Benefits for older PWD: increased constructive engagement, pleasure, helping behavior • But higher frequency of participation predictive of poorer QoL and decreased pleasure • Explained as indicating that measuring type of engagement rather than participation rate is more important for assessing effectiveness of SSICPs in promoting positive outcomes ***Program Development and Implementation:*** • Discussion of need for participants including staff to sign informed consent forms; in the case of the children and PWD, informed consents to be signed by legal guardians

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Table 1. (Continued).

Author(s), Year, Location	Aims, Field of Research	Method	Participants, Setting	Results	Findings Relevant to the Research Questions
Lee et al. (2007) US *(NB. This study is an extension of Camp et al., 1997, above and* Camp et al., 2004)	• To determine if positive forms of engagement can be increased through participation in an IG Montessori-based learning program • Aging studies and gerontology	Randomized control trial with quasi-experimental observational cross-over intervention • Older participants randomly assigned to one of two groups, based upon what order they would receive treatment • Group 1 received 6-month control condition of regular unit activities programming first, followed by 6 months of IG Montessori-based treatment • Group 2 received 6-month IG Montessori-based treatment first, followed by the 6-month control condition of regular unit activities programming • Myers Research Institute Engagement Scale (MRI-ES) used to assess type and duration of engagement exhibited during sessions (older adults observed for 5 mins for this assessment) – observations 2 days a week, before during and after sessions	***Participants:*** Nursing home residents with dementia ($n = 14$) • Age: 85-94 years (mean 90.29) • Female: 13 Preschool children ($n = 15$) • Age: 2.5-5 years ***Setting:*** • Nursing home with on-site childcare center	• During IG sessions, most common forms of engagement were constructive engagement and passive engagement • During regular activities programming, constructive engagement rarely observed and negative forms of engagement predominated • More constructive engagement (up to five times longer) observed during the IG Montessori-based activities programming compared to that of regular unit activities ($t(13) = 22.90$, p=0.001)	***Outcomes:*** • Benefits for older PWD: higher levels of positive engagement and lower levels of negative forms of engagement; ability to present "lessons" to children beneficial • IG programming between PWD and children can be successfully developed using Montessori-based activities as interface between dyads, even for older adults with more advanced cognitive deficits ***Program Development and Implementation:*** • Discusses value of using a method for activities in SSICPs, i.e. Montessori, and the use of a screening tool (Myers Menorah Park/Montessori Assessment System (MMP/MAS)) to ensure PWD able to participate and determine most appropriate activities • Emphasizes importance of environments that provide structure, order, meaningful social roles, chance to display competence – associated with lower levels of problematic behavior in PWD than less structured and less stimulating settings • Importance of thoughtful preparation of activities that match participants

(*Continued*)

Table 1. (Continued).

Author(s), Year, Location	Aims, Field of Research	Method	Participants, Setting	Results	Findings Relevant to the Research Questions
Low et al. (2015) Australia	• To evaluate the outcomes of an IG program (*Grandfriends*) for PWD living in nursing home and preschool children co-located within the facility • Intergenerational studies	Randomized control trial observational design with residents and pre-post observational design with children • Observations of engagement using the Menorah Park Engagement Scale in weeks 2, 7, 12 during IG session and a structured activity the same week • Three 5 min observations were made of each resident during the IG activity • Other scales before and after the 12-week program (Cohen-Mansfield Agitation Inventory, Brief Sense of Community Scale, Long Term Care Quality of Life Scale) • Children's attitudes toward older people assessed using adapted version of Children's Attitudes to the Elderly Interview (NB. this was not found to be a valid measure with children at baseline so was not repeated at 13 weeks)	***Participants:*** Children ($n = 21$) • Age: all 4 years • Female: 10 Older adults ($n = 40$) • Age: mean 91 years • Female: $n = 32$	• Passive engagement significantly higher during IG sessions compared to usual activities averaged across time • Passive engagement increased over time averaged between conditions • Self-engagement was significantly lower during IG sessions compared to usual activities averaged across time • Enjoyment was significantly higher during IG sessions compared to usual activities averaged across time • No differences between IG and control groups over time on quality of life, agitation, or sense of community	***Outcomes:*** • Benefits for older PWD • SSICP participation increased passive engagement and enjoyment, reduced self-engagement in comparison to other activities, but did not improve longer term outcomes in comparison to usual care • Benefits did not extend beyond sessions maybe due to limited time of sessions, young age of children, or moderate level of dementia, but in-the-moment benefits may be sufficient justification to run the program • Suggests SSICPs a cost-effective way of providing meaningful activities for aged care residents

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Table 1. (Continued).

Author(s), Year, Location	Aims, Field of Research	Method	Participants, Setting	Results	Findings Relevant to the Research Questions
		Program: • Each child paired with a "Grandfriend" to participate in activities, e.g. craft, discussions, games – 45 mins each week for 12 weeks	***Setting:*** • Large residential aged care facility with co-located preschool		***Program Development and Implementation:*** • Discusses development of the "Grandfriends" program, emphasizing importance of collaboration between preschool staff, nursing-home recreational staff, and research team • Explains that SSICP had to address outcomes in the Australian early childhood framework • Importance of explaining program to participants at recruitment stage, targeting elders who want to interact with children – several older participants dropped out and some refused (one considering the children should be at home with their mothers) • Need for continuing facilitation by research staff and communication between aged care/childcare organizations – aged care and preschool staff had different expectations of participants' interactions and their roles in facilitating these interactions

(*Continued*)

Table 1. (Continued).

Author(s), Year, Location	Aims, Field of Research	Method	Participants, Setting	Results	Findings Relevant to the Research Questions
Weeks et al. (2020) Canada	• To consult with nursing home residents with dementia about the development of a co-located IG program • Intergenerational studies	Qualitative interview data collection and analysis of interviews • Face-to face conversational interviews (14-52 mins)	***Participants:*** Older adults • Residents with dementia (n = 12) • Mild or moderate cognitive impairment and capable of participating in face-to-face research conversation • Female: n = 9	• 11/12 spoke positively about perceived benefits of a childcare center opening including increased interaction with children perceived to be beneficial to young and old • Some concerns included: role ambiguity for the residents, behavior of the children, level of commitment required by residents, child safety concerns	***Outcomes:*** • Benefits for older PWD: increased wellbeing and QoL having children around • PWD identified ways to contribute to lives of children including teaching them music, reading to them, increasing knowledge and skills • Social benefits: SSICPs can contribute to unusual understanding of PWDs wanting to continue societal roles, value of IG programs in this setting to animate opportunities for PWDs • Social benefits: SSICPs create powerful antidote to agism as a positive learning experience with potential to undermine stereotypes

(*Continued*)

Table 1. (Continued).

Author(s), Year, Location	Aims, Field of Research	Method	Participants, Setting	Results	Findings Relevant to the Research Questions
			Setting: Nursing home with co-located childcare center		***Program Development and Implementation:*** • Emphasizes importance of explaining roles and expectations to older people; recognition that not all residents will want to participate; reminding older people with cognitive issues about purpose of activities; recognition of gender differences • Discusses potential difficulty of establishing SSICPs in industrialized countries due to regulations, need for regulatory bodies to develop IG-friendly standards, need for public funding for SSICP developments and designated shared spaces • Importance of including residents' perceptions and expectations as a means of improving their QoL, suggests doing so with children's families also as a means of building community

ADL: Activity of Daily Living; IG: Intergenerational; ILC: Intergenerational Learning Center; MDS: Minimum Data Set; MMP/MAS: Myers Menorah Park/Montessori Assessment System; MPES: Menorah Park Engagement Scale; MRI-ES: Myers Research Institute Engagement Scale; PWD: People with Dementia; QoL: Quality of Life; QUALID: Quality of Life in Dementia Scale; SSICP: Shared Site Intergenerational Care Program; US: United States.

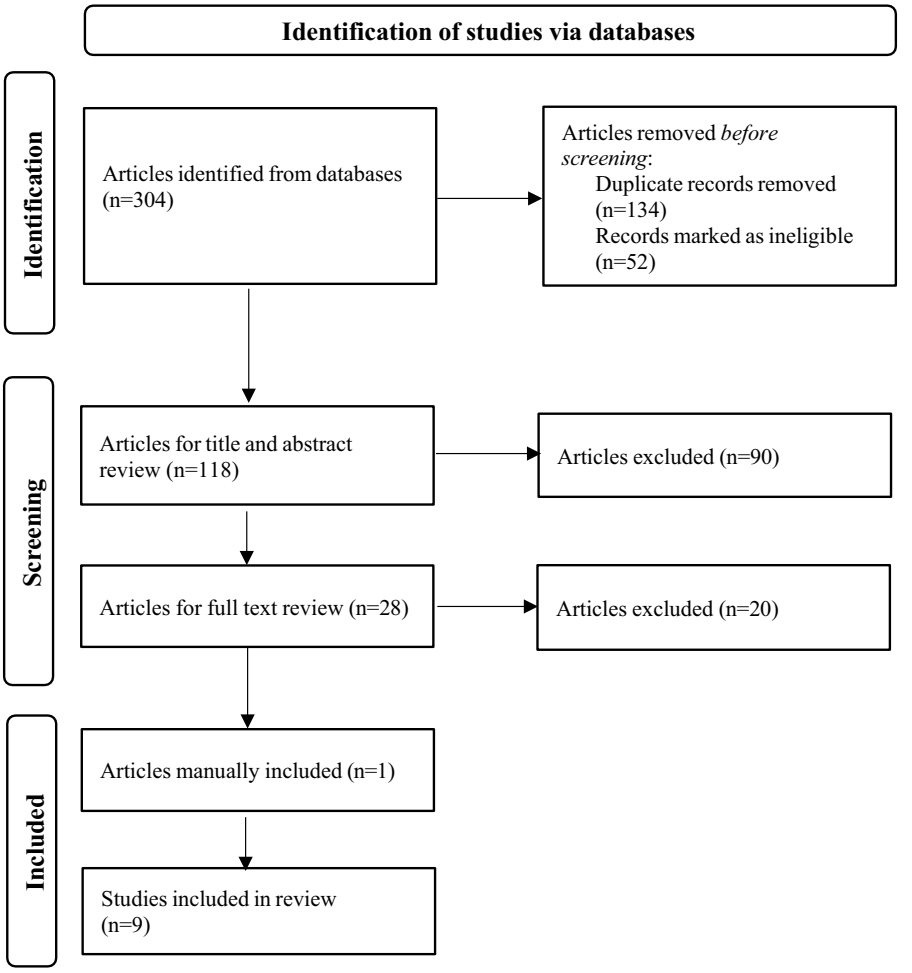

Figure 1. PRISMA-ScR flowchart of search results, article selection, and inclusion process. Source: Adapted from Tricco et al. (2018)

The objective of almost all studies is to investigate outcomes of SSICP participation. Most focus on benefits for older people (Doll & Bolender, 2010), particularly PWD (Camp et al., 1997; Janke et al., 2019; Lee et al., 2007; Low et al., 2015; Weeks et al., 2020), with some examining behavioral outcomes, such as reduction in apathy (Camp et al., 1997), or specific impacts, such as increased quality of life (Janke et al., 2019). Others focus on outcomes for children, including pedagogical opportunities (Heydon, 2005, 2007) and improved attitudes toward older people (Holmes, 2009). Intergenerational pedagogy within the context of early childhood learning is a focus of several studies (Camp et al., 1997; Heydon, 2005, 2007; Lee et al., 2007), with two exploring the specific method of Montessori teaching and learning (Camp et al., 1997; Lee et al., 2007). Investigation into the development and

implementation of SSICPs is the principal objective of one paper (Weeks et al., 2020) but a secondary objective of others (Heydon, 2005, 2007; Holmes, 2009).

The studies include four quantitative (Camp et al., 1997; Janke et al., 2019; Lee et al., 2007; Low et al., 2015), three qualitative (Heydon, 2005, 2007; Weeks et al., 2020), and two mixed-methods studies (Doll & Bolender, 2010; Holmes, 2009). Almost all employ an observational approach (Camp et al., 1997; Doll & Bolender, 2010; Heydon, 2005, 2007; Janke et al., 2019; Lee et al., 2007; Low et al., 2015), combined with quasi-experimental interventions (Doll & Bolender, 2010; Lee et al., 2007), naturalistic field studies (Heydon, 2005, 2007), randomized controlled trials (Camp et al., 1997; Lee et al., 2007; Low et al., 2015), non-randomized trials (Doll & Bolender, 2010), and behavioral case studies (Janke et al., 2019). Other methods include cross-over interventions (Lee et al., 2007) and pre-post studies (Holmes, 2009; Low et al., 2015).

Most studies have theoretical frameworks, including early childhood learning (Heydon, 2005, 2007) and Montessori pedagogy (Camp et al., 1997; Lee et al., 2007); recreational, physical, and occupational therapy and theories of developmental and cognitive psychology (Camp et al., 1997; Janke et al., 2019); emancipatory knowledge theory (Doll & Bolender, 2010); postmodern critical theory, post-capitalist economic theory, and deconstructivism (Heydon, 2005); language, literacy, and communication theory, and social semiotics (Heydon, 2007); and community capacity frameworks and situated learning theory (Weeks et al., 2020).

Review findings

SSICP outcomes

Findings of the review assist in answering the second research question about the outcomes of participating in this type of SSICP. Most studies report positively on the overall value of SSICPs. Low et al. (2015) consider SSICPs to be a cost-effective way of providing meaningful activity for aged care residents. Doll and Bolender (2010) suggest the value of SSICPs for organizations wanting to attract staff and residents, and for rural or isolated communities where children may need to travel for care. Heydon (2007) discusses how SSICPs are responsive to demographic, social, and economic challenges within many OECD countries. From a postmodern, post-capitalist, and deconstructivist perspective, she also discusses how the intergenerational dynamic within SSICPs "de-pathologizes" childhood and aging by repositioning children and older people as normative rather than socially marginalized (Heydon, 2005). Only one study mentions concerns among older people, including role ambiguity and level of commitment required for residents, and behavior and safety issues regarding the children (Weeks et al., 2020). This study also addresses the potential difficulty of establishing co-located centers in industrialized countries due to regulations, plus the need for

regulatory bodies to develop new intergenerational-friendly standards, public funding to accommodate developments, and designated shared spaces to be made available.

Outcomes for PWD are reported in several studies. Weeks et al. (2020) and Camp et al. (1997) contend that their positive results contribute to shifting perceptions about PWD. Weeks et al. (2020) propose their findings affirm that PWD have a strong preference and capacity to maintain societal roles, especially in contributing to the education of children, and that SSICPs, in supporting this, undermine negative stereotypes of PWD and create a powerful antidote to agism (p. 444). Similarly, Camp et al. (1997) suggest that within the context of presenting Montessori lessons to children, older people with early- to middle-stage dementia can be highly competent, contributing toward a perception of PWD as "normal adults who happen also to have memory and executive function disabilities" (p. 691). The value of Montessori activities is also confirmed by Lee et al. (2007), whose findings show the successful development of SSICPs using these activities as the interface between older person-child dyads, even for older adults with more advanced cognitive deficits (p. 481). Further benefits for PWD are found in behavioral outcomes. Four studies (Camp et al., 1997; Janke et al., 2019; Lee et al., 2007; Low et al., 2015) found increased constructive engagement, passive engagement, positive affect and enjoyment, plus a decrease in self- or negative-engagement during SSICP participation, compared to normal activities where high levels of apathy and disengagement were evident.

Benefits for older people more generally, plus children and staff, are reported. Similar to Weeks et al. (2020) and Camp et al. (1997), Doll and Bolender (2010) discuss the importance of roles for older people; they found that the role of "grandparent" in this particular SSICP had positive outcomes, including mood enhancement, health improvements, increased activity levels, and increased sense of worthiness and value. SSICP participation in Heydon's (2005) study empowered children and older adults by giving them agency through intergenerational learning, artistic expression, and sharing individual strengths; this process of intergenerational exchange erased vulnerability and fostered community. Heydon (2007) focuses on outcomes for children, examining how children use sign systems to communicate meaning; the intergenerational interaction facilitated by the SSICP enhanced semiotic opportunities, and language and literacy learning. In Holmes' (2009) study of outcomes for children, SSICP participation provided socialization, intellectual development, sensory stimulation, and fulfilled basic human needs, including acceptance and self-esteem through individual attention. Camp et al. (1997) also found that children appreciated individual attention from adults. In Holmes (2009), a significant outcome was improvement in

children's positive perceptions of older people, increasing from 50% to 100% by the end of the program. Holmes further notes benefits for childcare staff, whose perceptions of older people improved by seeing them in human roles; staff became educated about aging, morale was boosted through receiving support from older people, and they had the opportunity to be involved in innovative programming.

SSICP development and implementation

Some studies address requirements for the development and implementation of SSICPs, which assists in answering this review's third research question. Holmes' (2009) paper is significant as it is intended to provide a guideline and resource for developing SSICPs. This paper proposes structuring programs according to Kaplan and Larkin's (2004) approach, which combines an explicit model, that introduces specific structured intergenerational activities, with an emergent model, where the curriculum is driven by participants' interests and the relationships that evolve. Holmes (2009) outlines three steps in the program design process: (1) meetings of directors and staff to identify program criteria; (2) meetings between childcare center and nursing home staff to develop the SSICP team and decide upon elements such as standards of practice, orientation, and work processes; and (3) meetings of the SSICP team to identify potential problems and solutions, address attitudes and stereotyping about children and older people, and get input from families. Regarding program preparation, the need for consent within the recruitment and orientation processes is emphasized. Orientation of older people includes program information provision and training, screening, and interviews, plus getting input about activities and ways of interacting. Orientation of children utilizes activities and resources to present older people and illness/disability in non-stereotypical ways and explore what it is like to be old, followed by the gradual introduction of older people and shared activities.

Other studies discuss factors involved in SSICP development and implementation, including the importance of using specific models, methods, or theory in program design. Camp et al. (1997) and Lee et al. (2007) utilize a Montessori-based learning method and confirm its value in providing meaningful activities that can be specifically structured for PWD. Program design in Doll and Bolender (2010) is grounded in emancipatory knowledge theory, which they suggest can empower both generations, facilitate self-determination, and ensure participant input into the program rather than it being imposed. Empowerment is also a feature of Heydon's (2005) study, in which both generations were "de-pathologized" by giving them agency, rather than being depicted as vulnerable.

Collaboration during SSICP design is also discussed. Weeks et al. (2020) stress the importance of gathering residents' perceptions and expectations as a means of improving their quality of life through inclusion, and they suggest

doing so with children's families as a means of building community. In Doll and Bolender's (2010) study, collaboration included brainstorming between the childcare center and RAC organization; dialogue with the school district; touring a similar program; consultation with relevant agencies; plus meetings to discuss student and teacher selection processes, and designing the program, shared physical space, and areas for interaction or observation. Low et al. (2015) detail collaboration between preschool and nursing home staff, and the research team. They emphasize the importance of collaboration in meeting the RAC facility programming needs and addressing the early childhood policy framework. They also emphasize ongoing collaboration, explaining that while aged care and preschool staff were involved in designing program content, they had different role expectations for participants and themselves during implementation, which required research staff to facilitate continual communication between the organizations.

The importance of preparation and orientation is discussed in almost all studies. Camp et al. (1997) outline three steps for preparing participants: (1) the capacity of older people to participate has to be ensured – they suggest using models of learning and memory to assess cognitive deficits and determine capacity, and developmental sequencing of cognitive ability to develop programming for PWD; (2) participants must be chosen carefully – older adults were excluded if they did not speak English, were blind, or had recently exhibited socially inappropriate behavior; and (3) participants must be properly prepared – staff worked individually with participants and in rotation to familiarize them with activities, procedures, and different partners, with clarification that it was not necessary for older people to remember whom they had worked with, as the procedural memory necessary for teaching is spared in early to middle stages of dementia. Similarly, Lee et al. (2007) recommend the use of a screening tool (Myers Menorah Park/Montessori Assessment System (MMP/MAS)) to ensure PWD are able to participate and to determine the most appropriate activities. Another study of PWD (Janke et al., 2019) asserts the importance of all participants, including staff, signing informed consent forms; in the case of the children and PWD, informed consent was provided by legal guardians.

Other elements of program preparation and orientation include emphasis on developing a sense of safety and overcoming fear (Heydon, 2005), particularly in relation to normalizing older people's equipment (e.g. wheelchairs, oxygen), teaching children to accommodate age-related disabilities (e.g. hearing, memory loss, unpredictable behaviors), and preparing staff if they have not previously worked with older/younger people. In Heydon's (2005) study, this was done through purposeful and planned processes, including sing-alongs and neighborhood strolls, with the aim of encouraging interaction and community building. Low et al. (2015) and Weeks et al. (2020) stress the need to target older people who want to interact with children, and to

explain their roles and responsibilities, recognizing that some older people may not want to participate. In Low et al. (2015), several older participants dropped out and some refused to participate. Weeks et al. (2020) observe that many older people felt responsible for the children, which caused stress and anxiety, and they emphasize the need to remind older people with cognitive issues about their roles in the program and the purpose of activities to alleviate concerns. They also discern gender differences regarding older participants; in this study, all male participants expressed concerns about interacting with children because, due to divisions of labor in the home and workforce, these men had no experience in the direct care of children and were uncomfortable. This indicates a potential need for additional preparation for male participants, plus the need for staff to support both men and women to participate if they choose to.

Finally, some studies discuss specific factors that can ensure the success of SSICPs. Heydon (2005, 2007) discusses the value of alternating young-old seating arrangements to encourage interaction, flexibility regarding participation, running the program in different areas of the facility to reduce barriers to participation, accommodating all physical needs and having necessary institutional supportive equipment (e.g. grab bars, accessible bathrooms, easy-to-clean furniture), and creating a pleasurable environment with nature, art, music, birds, and small animals. Regarding older people with cognitive issues, Heydon (2007) recommends the "ritual" of everyone reintroducing themselves. Regarding staff, Heydon (2005) suggests they should lead by example and model cooperative behavior, ensuring they overcome any biases and pay equal attention to both generations.

Discussion

In alignment with guidance on conducting scoping reviews (Arksey & O'Malley, 2005; Peters et al., 2020), this review aims to map the landscape of research literature about IPs conducted in shared site contexts where RAC facilities and childcare services are combined and co-located, and examine the outcomes of these programs and how they can best be developed and implemented.

In mapping the literature landscape, the review reveals some evidence on outcomes for children. While several extant reviews examine IP research on intergenerational pedagogy and programs of learning for children (Cartmel et al., 2018; Gendron et al., 2018), Heydon (2007, p. 37) recognizes that there is "a dearth of research that specifically targets the development and implementation of co-located IG learning curricula" and "virtually no literature that considers the ways in which co-located IG learning curricula may be related to the development of academic skills, most notably language and literacy development, in young children." This present review also finds scant focus on

intergenerational pedagogy and learning in the SSICP research, which is a limitation of the review. Apart from Holmes' (2009) and Camp et al.'s (1997) discussion of intellectual development and learning opportunities, only Heydon's (2005, 2007) two studies examine intergenerational learning within an SSICP context in any detail. Specifically, Heydon (2007) examines intergenerational language and literacy-learning opportunities, investigating communication and collaboration from the perspective of social semiotics and multi-modal expression. This study proposes that SSICPs offer a unique means of developing academic skills within the context of intergenerational care programming, particularly language and literacy, through dialogic collaborative exchange with older generations, an approach that relies on community capacity but also builds community.

Regarding outcomes for older people, five studies focus on specific benefits for PWD (Camp et al., 1997; Janke et al., 2019; Lee et al., 2007; Low et al., 2015; Weeks et al., 2020). This could indicate that SSICPs are largely targeted at PWD, are especially effective for this cohort, or that most research on this type of SSICP has focused on their implementation with PWD. There are several extant literature reviews on IPs for PWD, which note benefits including improved mood, enjoyment, and engagement levels; stimulation of memory and mind; and decreased depression, social isolation, and disengagement behavior (e.g. Galbraith et al., 2015; Gerritzen et al., 2020; Lu et al., 2021). The findings of this scoping review confirm these benefits within SSICP contexts.

However, some divergent findings regarding longer-term benefits for PWD emerged in this review. In Weeks et al. (2020), most participants considered that interaction with children would increase their quality of life, a finding confirmed by Janke et al. (2019). Nevertheless, Janke et al. (2019) found that higher frequency of participation was significantly predictive of poorer quality of life and fewer demonstrations of pleasure. Similarly, while Low et al. (2015) found increased passive engagement and enjoyment and reduced self-engagement during SSICP sessions, they found that participation did not improve longer-term outcomes, including quality of life, and benefits did not extend beyond sessions. These findings reflect previous reviews' problematic findings on quality of life, depression, engagement, and self-esteem (Gualano et al., 2018; Lu et al., 2021).

These findings can be explained in relation to methodological issues, such as evaluation methods, sample sizes, the limited time of sessions, young age of children, and levels of dementia (see Low et al., 2015; Lu et al., 2021). Further, as Janke et al. (2019) recognize, these findings indicate that measurement of *type of engagement* rather than *participation rate* is more important for assessing the effectiveness of SSICPs in promoting positive outcomes for PWD. Less frequent or intense participation may be more suitable for PWD, and it may be that in-the-moment benefits of participation provide sufficient

justification for programs (Low et al., 2015). These finding also suggest the importance of running longer-term but less intensive programs, such as was conducted in Camp et al. (1997), which found that the number of successfully taught Montessori lessons increased over the course of the study as adults and children became familiar with the teaching format and each other.

Other outcomes that emerged in the review findings include organizational, economic, logistical, and social benefits of integrating these two forms of care services. Organizational benefits include the capacity to attract staff and residents (Doll & Bolender, 2010) and benefits for childcare staff who have not previously worked with older people (Holmes, 2009). Economic benefits include capacity to provide meaningful but cost-effective engagement and activities for older people (Low et al., 2015) and logistical cost-benefits for families (Doll & Bolender, 2010). Heydon's studies (2005, 2007) emphasize the social value of SSICPs in building community through intergenerational exchange and collaboration. Heydon (2007, p. 36) explains that SSICPs respond to "problems of isolation and depression among elders, … a prevalence of out-of-home care for children, … [and] weakened intergenerational contact" and are "designed to solve several demographic and social challenges."

Previous reviews have examined elements required for IP development and implementation. Cartmel et al. (2018) identifies key principles and practices that should underlie any intergenerational learning program and ensure its efficacy. These principles are: secure, respectful, and reciprocal relationships; partnerships; high expectations and equity; respect for diversity; and ongoing learning and reflective practices. The practices are: holistic approaches; responsiveness; learning through play; intentionality; environments; cultural competence; continuity for learning; and assessment for learning. Similarly, Jarrott et al. (2021) identify 15 evidence-based intergenerational practices that can be implemented across any IP. These practices relate to: *program considerations*, such as making environmental modifications; *program preparation*, such as training for staff and preparing participants; *program content*, such as using technology; and *quality of interactions* during the program, such as incorporating mechanisms of friendship. Utilizing Jarrott et al.'s (2021) framework, Table 2 presents results from this scoping review on SSICP considerations, preparation, content, and interactions that should underlie and inform their development and implementation.

While the intention of scoping reviews is not to evaluate research but provide an overview of the landscape of a particular topic, something can be said of the dimensions of future research on SSICPs, despite the limitation of the small number of studies in this review. The studies vary according to methodological design and measures, which makes conclusions regarding outcomes and best practices problematic. This methodological issue has been noted in previous IP reviews (see Galbraith et al., 2015; Knight et al.,

Table 2. SSICP development and implementation: considerations, preparation, content, and interactions.

Program Considerations	Program Preparation	Program Content	Program Interactions
Policy and Regulation • SSICPs should align with policy and regulations, overcome regulator barriers, address policy frameworks • Need for regulatory bodies to develop IG-friendly standards • Need for public funding for SSICP developments and designated shared spaces ***Optimal Spatial Environment*** • Importance of spatial design to facilitate active and passive participation through designated interaction and observational areas • Value of highly organized and structured IG environment, especially for PWD • Need for environment with institutional equipment to accommodate physical needs, disabilities, mobility issues • Value of positive environment that incorporates nature, small animals ***Program Priorities and Resources*** • Need to ascertain program priorities • Need to ensure human and financial resources and administrative support • Need to allocate leadership	***Collaboration and Communication*** • Importance of dialogue between childcare and aged care staff to determine program goals, standards of practice, assessment and revision plans, potential concerns • Importance of communication between staff and local authorities • Importance of dialogue between staff and the research team if one is involved • Value of gaining input from participants and families re program design, understand their values, facilitate self-determination, ensure the program design is not imposed ***Participant Selection*** • Need to select participants carefully and deliberately • Beneficial to target older people who want to interact with children • Benefit of using a screening tool (e.g. Myers Menorah Park/Montessori Assessment System (MMP/MAS)) to ensure PWD able to participate and determine appropriate activities • Need for participant consent or informed consent from legal guardians (children and PWD) ***Orientation*** • Helpful for children in normalizing aging, disability, health equipment, can help to build sense of safety and community • For older people – explanation of roles and expectations can help reduce stress and confusion, especially among PWD • For staff – can help overcome bias and ensure equitable treatment of all participants	***Theory, Methods, and Models*** • Montessori approach, provides meaningful and appropriate activities and interactions, especially for PWD • Value of providing structured activities that are meaningful to both generations • Value of theory e.g. physical and occupational therapy, theories of developmental and cognitive psychology • Value of both explicit and emergent models of program content and delivery – begin by offering specific monthly IG activities (explicit model) and later shift towards choosing activities according to interests of participants and relationships that develop (emergent model) and eventually use both models in program delivery • Value of introducing IG activities gradually • Program content should facilitate authentic self-expression and self-determination through activities, e.g. story-telling and the "ritual" of reintroductions (especially for PWD), which can lead to collective problem-solving and community building	***Equality*** • Importance of upholding equality of both generations • Need for an unbiased approach when implementing and facilitating SSICPs • Importance of empowering young and old, understanding basic values, facilitating self-determination • Staff should have a specific role in all interactions to model cooperative behavior and inclusivism ***Flexible Participation*** • Flexible approach should be taken re participation to support self-determination • Need to accommodate all physical needs and alternate location of class to reduce participation barriers ***Recognition of Difference and Preference*** • Importance of recognition of gender differences among participants and the need to support both genders • Importance of recognizing that not all residents will want to participate ***Communication*** • Need for ongoing facilitation and communication from the research team • Need for constructive and ongoing interaction between aged care and childcare organizations to avoid confusion about roles and responsibilities

IG: Intergenerational; MMP/MAS: Myers Menorah Park/Montessori Assessment System; PWD: People with Dementia; SSICP: Shared Site Intergenerational Care Program.

2014). While SSICPs can provide a viable option as a model of care that is responsive to demographic, economic, and social challenges, previous reviews have asserted that they must be developed and implemented according to an "evidence-based model of practice framework" (see Cartmel et al., 2018; Radford et al., 2018). Therefore, future research should aim to be more methodologically rigorous, with the use of consistent outcomes measures, to establish a stronger evidence-base that can reliably inform policy and practice development regarding SSICPs. Future research should also examine beyond developed countries to capture diversity in demographic contexts, and different policy and practice settings.

Conclusions

This scoping review examines intergenerational care programs conducted in shared site contexts that combine RAC and childcare services, with a specific focus on the outcomes of participating in SSICPs, and the essential elements required for SSICP design and implementation.

Regarding outcomes, benefits of SSICP participation for children include the provision of socialization, individual attention, and learning opportunities; enhancement of academic, language, and literacy skills; increased sense of self-worth; and improved perception and understanding of older people. Benefits for older adults include mood enhancement and increased sense of worthiness and value; health improvements and increased activity levels; plus the provision of continuing societal roles, which can enhance sense of self and purpose in older age. Some studies report specific benefits for PWD, including increased enjoyment, helping behavior, wellbeing, and engagement. Other studies reveal economic, organizational, and social benefits of SSICPs, including their cost-effectiveness, capacity to attract staff, specific benefits for staff, logistical solutions for families, facilitation of community building, and the empowerment of both young and old generations.

The review reveals a range of principles, guidelines, and practices that should underlie SSICP development and implementation, including considerations about program environment, preparation, and content, and how to structure positive interactions during program sessions.

The scant number of articles reviewed is indicative of the need for further research on this type of SSICP. Further, the lack of consistency in relation to outcome measures and methodological approaches is indicative of the need for more rigorous research in the field. However, the range of benefits revealed in the studies reviewed suggests the potential value of this type of SSICP, both in relation to childcare and aged care. Moreover, the guidance provided by the studies reviewed on how to develop and implement SSICPs reveals the practicality of these IPs and their potential as an integral element of aged care and childcare policy and practice.

Contribution to the Field

This scoping review provides an overview of research on shared site intergenerational care programs (SSICPs) that integrate residential aged care and childcare services, and provide intergenerational programming in co-located single sites that are home to older adults and contain a childcare center.
The review highlights the benefits of SSICPs for older people and children, particularly older people with dementia, plus organizational, economic, and social benefits.
The review provides insight and guidance regarding essential practices and principles underlying the development and implementation of SSICPs.
Overall, the review demonstrates the potential of SSICPs as a viable model of care that is responsive to current demographic, economic, and social challenges in caring for young children and older people.

Notes

1. Within the context of IPs, the concept of *generation* is mostly understood demographically, as a cohort of people born during a certain historical time, but also sometimes genealogically, in relation to positions in family lineages (Alwin & McCammon, 2007; Newman & Sánchez, 2007). See the Concept subsection in the Methods section of the paper for more discussion on the concept of generation.
2. An initial example from 1965 is the Foster Grandparents program. See Goyer and Zuses (1998) and Jarrott (2019).
3. The protocol is available on request from the corresponding author.
4. As confirmed by OECD data, the customary age limit of 65+ for older people (see https://data.oecd.org/pop/elderly-population.htm) and the age limit of <6 for young children receiving childcare is established across developed countries (see https://www.oecd-ilibrary.org/sites/0a156279-en/index.html?itemId=/content/component/0a156279-en).
5. In recognition of international and intercultural variation regarding the nature of childcare, where some childcare centers provide integrated preschool services that include early childhood learning, and others focus more on care provision and may be called day care centers or playgroups, this review did not limit its search to childcare only, but included the terms preschool, day care and playgroup, in order to capture this diversity of care provided to children aged 6 and below.

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