Alberta Inclusive Child Care Project

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With foreword by David McConnell PhD and David Nicholas PhD

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"I remember this one little guy that I worked with who had Autism Spectrum Disorder and the moment of his mother's life was when they received his very first birthday invitation. She cried and cried and cried. Eventually the families in this classroom and in the little boy's life, just began to see him as a special and beautiful boy. They, with their children, just began including him in all of their activities."

Family Day Home Coordinator

"What I love about inclusion is everyone is together and [children with special needs] are able to learn from their typical peers, but typical peers can also have a really beautiful opportunity to learn and watch and accept, and honor those children as well. It is a learning experience for every individual in that classroom. I think it creates so much richness in a program and lot of value building."

Child Care Program Director

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Foreword

High quality inclusive child care benefits everyone—children, parents, employers, and society as a whole. For many parents, access to inclusive child care is an essential resource; without it they would be unable to participate in the workforce and secure their family's economic well-being. And for children, *with and without* disabilities, inclusive childcare offers early learning experiences that foster resilience, build social skills, and enhance their life opportunities. The benefits are well documented. The problem is that full inclusion remains an elusive ideal: Many families are struggling to find suitable, inclusive child care for their son or daughter with disabilities.

This report summarizes findings of an Alberta-wide study examining facilitators and barriers to child care for children with disabilities. It illuminates the successes and ongoing need for inclusive child care resources. These findings invite us to weave strands of openness and diversity at the heart of our communities and systems of care. While this study focuses on young children and their care needs, its message resounds across the broad spectrum of lifespan and strata. Ensuring opportunities for the inclusion of all persons with disabilities is not just an idea 'whose time has come'; it is at the very core of a just and compassionate society.

This report inspires us to think more broadly and deeply about the care of young children with disabilities and support for their families in Alberta. It reminds us that by implementing innovative policy and service delivery systems, we can support a network of vibrant inclusion. The study sets the tone for similar initiatives of inclusion as these young children grow to become adolescents and ultimately adults with needs for engagement throughout their lives. By continuing to advance inclusiveness in child care practices across Alberta, the next generation of young children will indeed benefit from the investment of today.

We commend Dr. Wiart and her research team for this excellent report. They have accomplished their aim of advancing understanding about the inclusion of young children with disabilities in child care in Alberta. In so doing, we as the consumers of this report are encouraged to continue the good work of inclusiveness for all children in this province.

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Executive Summary

The overarching objective of the Alberta Inclusive Child Care Project (AICCP) was to address a research question included in the Ministry of Children and Youth Services (MCYS, 2008-2011) research plan: *What service delivery models best support children with special needs requiring child care?* The purpose of the project was to provide information that would support the development of strategies for improving access to inclusive child care for children with special needs in Alberta.

Study Design

The AICCP was a mixed-methods study that employed qualitative and quantitative methodologies. Four focus groups were conducted with parents, three with child care service providers and three with child care program directors in two large urban and three small urban sites in Alberta. In total, 20 child care program directors and family day home coordinators, 14 service providers (centre-based and family day home) and 12 parents of children with disabilities participated in focus group interviews. Focus group interview questions explored facilitators and barriers to accessing inclusive child care from the perspectives of parents of children with disabilities and child care directors, family day home coordinators and care providers. Three hundred and forty three child care programs and family day homes responded to the survey that collected information about access barriers and facilitators and the structural and process characteristics considered important for the provision of inclusive child care (e.g. staff-to-child ratios, staff training, access to specialized support services and funding, written policies, physical accessibility, collaboration with families, and attitudes toward the philosophy of inclusion).

Results

A brief summary of the results by research question is included below.

1. *What outcomes related to child care are meaningful to families of children with special needs in Alberta?*

   In the focus groups, parents indicated that child care programs were an important venue for enhancing their child's acceptance in their community. Spending time with same-aged peers provided opportunities for developing friendships and acceptance, ultimately leading to more fulfilling lives for their children and families. Families also wanted care providers who were adequately trained and confident about their abilities to meet the needs of their children.

2. *What are the facilitators and barriers to access to inclusive child care from the perspectives of parents of children with special needs and child care staff and directors in Alberta?*

   While the results of the child care program/family day home agency survey indicated that respondents had positive attitudes towards the philosophy of inclusion, children with special needs experienced barriers when attempting to access to child care programs. Among the programs and day homes that had received requests to provide care to children with special needs, 36% of programs and 29% of family day homes were unable to accept the children with special needs into care. Cited reasons for not accepting children with special needs included need for increased staffing, improved access to training and unsuitable physical environments. Less than half of programs (46%) and very few family day home agencies (4%) reported that the indoor and outdoor areas of their program or family day home were accessible to children who use wheelchairs. In addition to flexibility with staffing, participants articulated

the need for specialized support services that could provide individualized recommendations for including children with special needs in child care settings. Lack of knowledge about funding mechanisms and how to access supports and resources was identified as a barrier.

3. *According to the research literature, what child care staff practices and child care program characteristics positively facilitate meaningful inclusion of children with special needs?*

   Research suggests that meaningful collaboration with families, active coaching by classroom staff (particularly for children with more severe disabilities), positive attitudes towards the philosophy of inclusion, and training and on-site consultation by specialized support service providers may enhance the inclusion of children with disabilities in early childhood education and care settings.

4. *To what extent are child care staff practices and program characteristics that facilitate inclusion self-reported among directors of child care programs in Alberta?*

   Child care providers who participated in the focus groups viewed inclusion as beneficial for all children, staff and parents. Commitment to inclusion appeared strong among child care programs and family day home agencies. In addition to the positive attitudes towards the philosophy of inclusion evident in the survey responses, very few child care program respondents (4%) and none of the family day home respondents indicated their level of commitment to inclusive child care had decreased over the past two years. While reliable access to specialized support services was deemed crucial by the focus group participants, 36% of surveyed programs and 40% of family day homes were unaware of how to access specialized support services for children with special needs. While most (81%) survey respondents agreed that all children with special needs should have individual program plans that document goals, strategies and progress, only 56% of programs that provided care to children with special needs had goal and/

or program planning documents. Less than half of survey respondents had written policies regarding children with special needs.

5. *Based on self-report from directors of child care programs, what are the differences in practices and program characteristics between programs that self-identify as providing care for children with special needs and those who do not provide care for children with special needs?*

   Inclusive child care programs were more likely to have their staff attend ongoing training, operate above government required staff-to-child ratios, and have written policies that support inclusion. There were no differences between inclusive and non-inclusive programs for program location (rural/urban), profit structure (private/not-for-profit), type of child care program, waitlist management, and survey respondent attitude.

Recommendations

The following 9 recommendations are based on the findings of the AICCP.

Findings relevant to recommendations 1-5

1) Children with special needs experience decreased access to child care programs.
2) Knowledge about specialized support services and success in accessing these services was inconsistent among child care programs.
3) Barriers to providing care to children with special needs included lack of education and training regarding specific strategies that support inclusion, challenges with ensuring adequate staffing and limited access to specialized support services.

1. Explore options for ensuring timely access to specialized services (e.g., behaviour consultants, occupational therapists, early learning consultants and speech language pathologists) that are ***focused on enhancing the inclusion and participation of all children within the child care setting*.** Greater program benefits can be realized when specialized services focus on enhancing the capacity of child care program staff to include children with special needs and on increasing the quality of early learning and care program for *all* children within the program. When required, specialized service providers may be involved with programs to a greater extent initially and to a lesser extent as capacity within programs to effectively support children with special needs increases. The research identified a particular need for assistance with strategies for working with children with challenging behaviours and children with more severe disabilities.

2. Ensure child care centres have access to information about the services and supports that are available to them and the processes that are required to access those services and supports. For example, all programs should be aware of the Government of Alberta online resources, such as the Children and Youth section of the Alberta Supports website (www.programs.alberta.ca/Living/13765.aspx) the *Raising Children Alberta* website with information specifically about children from 0 to 6 years of age (www.raisingchildren.alberta.ca) and the website for the Early Learning Branch (Alberta Education) http://education.alberta.ca/admin/special/ecs.aspx), as important resources for information about supports and services in Alberta. Community coalitions established through the ECMap project may provide a forum for establishing effective strategies for sharing information about supports and services at the community level.

3. Require child care programs to demonstrate knowledge and implementation of the practices that promote inclusive child care. One way to implement this strategy would be to add to existing accreditation standards, embedding expectations for providing high quality inclusive child care within a universal process implemented to

improve overall quality in Alberta child care settings. The Inclusion Quality Rating Scale (IQRS) (2009) is one example of a resource that could be used to inform this process.

4. Explore options for providing timely access to supplemental staff support and resources to child care programs while minimizing administrative barriers to access. Timely access to short-term assistance could enable programs to access immediate help and assess the need for more permanent supports and services to ensure ongoing participation in the program.

   Child care programs may initially require guidance regarding staffing strategies for children with special needs in their programs. Some children may require 1:1 support whereas many children benefit from intermittent support throughout the day. Determining the level of support should take into consideration the child's ability to participate with their peers in the context of their program. Effective strategies for inclusion can reduce the amount of staff support required for some children and therefore it is recommended that funding for additional staffing be augmented with support for implementation of strategies for successful inclusion.

5. Explore options for innovative models for education of child care providers to increase knowledge, skills and confidence for supporting children with special needs in early learning and child care settings. As noted in the report, successful models for providing onsite modeling of strategies and education focused on building child care program capacity for including all children already exist in the province.

Findings relevant to recommendations 6-9

1) Providers experience fragmentation between services provided by different Ministries.
2) The use of formalized, goal setting processes with families was not widespread in practice.
3) Gaps in support when children are not in school (i.e. professional development days and school holidays) can lead to decreased access to child care or inadequate supports required to optimize participation.
4) Parents and child care providers experienced challenges with accessing support and services due to challenges with 'navigating the system.'

6. Work towards the development of joint service planning and goal setting across early learning and care settings for children who access services that are funded through the Ministries of Human Services, Health and Wellness and/or Education. An example of collaboration across Ministries has been successfully piloted through the *Common Approach to Specialized Services for Eligible Children in Alberta* project implemented jointly by the Ministries of Children and Youth Services and

Education, serving children eligible for Family Supports for Children with Disabilities (FSCD) specialized services funding (CYS) and Program Unit Funding (Education).

7. Support child care programs in the development of learning plans that include strategies and supports for children with special needs to facilitate learning and participation in the child care setting and transition to school programs.

8. Address gaps in the provision of resources to supplement additional child care supports when children with special needs are not participating in their regular educational program. For example, early learning and care settings may require augmentation of staffing supports on school professional development days and holidays. This may be addressed, at least in part, by ensuring that programs have flexibility in their ability to assign staff support to the children within their programs. Policies that encourage the assignment of a specific staff person to one individual child may not always encourage the most effective or efficient staff allocation.

9. Provide families and child care programs with assistance in navigating the service delivery system, connecting with and coordinating services. For example, one model could be to provide families and child care centres with access to a ‘service coordinator’ who could help them find assistance to meet their needs. To be effective, service coordinators would need to work across ministerial boundaries. Should joint service planning be established, the service coordinator could be a member of the service team. Ensuring that child care programs have access to additional resources for system navigation (e.g. handbook) may also be useful in this regard. In addition, community coalitions established through the ECMap project may provide a forum for establishing processes for cross-sectoral collaboration at the community level.

Project Background

The Alberta Inclusive Child Care Project (AICCP) represents a partnership among the Alberta Centre for Child Family and Community Research (ACCFCR), the Alberta Ministry of Children and Youth Services (MCYS) and researchers at the University of Alberta and the University of Calgary. The MCYS included the following question in their 2008-2011 research plan:

> ***What service delivery models best support children with special needs requiring child care?***

The intent of the AICCP was to support the development of strategies to improve access to inclusive child care for children with special needs and to support the Ministerial priority of accessible, quality, and affordable, child care options.

The AICCP was conducted by researchers at the University of Alberta and University of Calgary from April 2009 to December 2010. The funding for this study was provided by ACCFCR, a not-for-profit organization operated at arms-length from government. The primary aim of ACCFCR is to develop and mobilize evidence-based, priority research into policy. The AICCP research advisory committee (figure 1) provided input at strategic points throughout the project.

Alberta Inclusive Child Care Project

Advisory Committee

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Mr. Brian Frevel • Senior Manager, Research Initiatives. Ministry of Children and Youth Services

Ms. Roxanne Gerbrandt • Senior Manager, Family Support for Children with Disabilities Program. Ministry of Children and Youth Services

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Ms. Leann Wagner • Senior Manager, Child Development Services. Ministry of Children and Youth Services

Ms. Wendy Yewman • Senior Operating Officer, Community Initiatives Edmonton & Area. Alberta Children and Youth Services

Figure 1. Research Advisory Committee

Introduction

Families are increasingly accessing child care for their children. In 2001, 66% of mothers with children under the age of two years were employed.[1] Statistics Canada reported that the number of dual-income Canadian families has increased from 33% in 1967 to 62% in 2001.[2] The shifting landscape of family working arrangements has clear implications on the demand for quality child care for young children. Access to quality child care is an important support for families as they strive to maintain balance between their work and family lives.

In Canada, provincial jurisdictions are responsible for the delivery of the majority of early childhood education and care programs. Provincially regulated child care programs typically include full-day programs, preschool programs, out-of-school care programs for school-aged children and approved family day homes. While public funding is allocated for the delivery of early education and care services, most Canadian provinces[a] view funding for early childhood education and care as a family responsibility. Therefore, most Canadian early education and care programs are funded by a combination of parent fees and public funding mechanisms. The majority (i.e., 75%) of child care programs in Canada operate as not-for-profit organizations, however the proportion ranges by province from 30% (Newfoundland and Labrador) to 100% (Saskatchewan, Northwest Territories and Nunavut).[3] Not-for-profit programs are typically overseen by volunteer boards comprised of community members and parents.

In Alberta, the MCYS is responsible for regulating child care programs that care for seven or more children. The Child Care Licensing Act and Regulation[4] outlines licensing requirements that are primarily focused on structural quality including levels of child care provider certification, and general program requirements including emergency and illness procedures, nutritional requirements, minimal space and equipment requirements, and staff-to-child ratios. In addition to legislated standards, the government of Alberta provides funding to licensed day care and out-of-school care

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[a] In 1997, the province of Quebec initiated a publicly funded, universal early childhood education and care program.

programs and contracted family day home agencies that choose to participate in an accreditation process. Accreditation is designed to enhance program quality and is administered by the Alberta Association for the Accreditation of Early Learning and Care Services. While the integration of early childhood education and care is not the primary service delivery model in Alberta, there are many examples of innovative programs that integrate early education and care services including the provision of kindergarten programs within full day child care settings and preschool programs delivered by school boards for preschool children with special needs.

Child care for children with disabilities

While access to quality child care is a crucial support to many Canadian families, child care is particularly important for families of children with disabilities; they have lower family incomes and incur larger financial costs than other families.[5, 6] In 2000, the average household income for Canadian families with children with disabilities was only 88% of the average household income of families whose children do not have disabilities.[7] In addition, 24% of families with children with disabilities had an annual income under $30,000, compared to 18% of families whose children do not have disabilities. Burton and Phipps (2009)[8] examined the costs of raising a child with a disability among Canadian families who participated in the Participation and Activity Limitation Survey (PALS). They examined opportunity costs (relationship between child disability and labour market outcomes) and determined that over half of Canadian families with children with disabilities (58%) experience some challenges associated with their children’s disabilities. The most common challenges were changing work hours (34%), working fewer hours (36%), not taking a job (29%) and quitting work (20%). Opportunity costs primarily affected mothers (68%), however, 11% of respondents reported that fathers were affected to a greater extent. Families with children with disabilities also have greater out-of-pocket expenses than other families spending, on average, an additional $1159 per annum on everyday activities, health services, and specialized equipment.[8]

In addition to enhancing the ability of families to join the workforce, access to inclusive child care[b] for children with disabilities has additional benefits for care providers, children with disabilities and other children in child care programs. Inclusive settings provide natural opportunities for children with disabilities to experience social interaction and engagement in activities with peers.[9] While research on early childhood education and care does not provide conclusive evidence of the effects of child care on child outcomes, research suggests that children with disabilities can participate in meaningful activities with their peers[10] and they engage in more social interactions in inclusive settings compared to non-inclusive settings.[11] Parents perceive that early childhood inclusion has beneficial effects on their child's development[12-14] and inclusion can enhance peer acceptance and attitudes towards individuals with disabilities.[15] Service providers have reported positive experiences with inclusion and perceive that inclusion is beneficial to staff and children with and without disabilities.[16]

Barriers to access to child care for children with disabilities have been reported in the literature including parental concerns regarding qualifications of service providers,[17] concerns of parents of children without disabilities related to decreased teacher attention for their children,[17] program director concerns about costs of staffing and modifications for physical accessibility,[18] medical or developmental approaches to specialized service provision that are not congruent with inclusive practices,[19] inadequate opportunities for staff education and training[20-22] and inadequate policy frameworks that do not mandate the acceptance of children with disabilities into child care programs.[20] In one Canadian study that included 354 Toronto preschools, most of the providers indicated they would turn away a child because of a disability.[23] In this survey of 400 child care providers, lack of knowledge (70%) and lack of confidence (29%) were the most significant barriers to providing care.[23]

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[b] While we acknowledge that the term *inclusive* often refers to inclusion of all individuals of various cultural, ethnic, and religious backgrounds and varying levels of abilities, throughout this report the term 'inclusive child care' refers to child care programs that include children with and without special needs.

Program characteristics associated with higher quality in early childhood learning and care settings include higher staff to child ratios,[24, 25] higher staff salaries,[25] smaller group sizes,[26] and staff with early childhood education training.[25, 27] Although these general quality indicators are believed to be relevant to child care for children with special needs, additional specific supports are often required. Research evaluating the effects of program characteristics and staff practices on successful inclusion of children with special needs in child care settings is sparse. However, the research that does exist suggests that quality of child care for children with disabilities is improved with targeted training and support.[28-30] Training of service providers, active strategies for enhancing inclusion and meaningful collaboration with families are generally considered important components of successful inclusion of children with disabilities. Coordinated, specialized support services including educational consultants, rehabilitation therapists and other specialised service providers are viewed as important supports for children with disabilities in early education and care settings.[31] Since many children with disabilities receive services from multiple disciplines across different environments, coordination of services across service sectors (education, social services and health) is gaining an increasing amount of attention in the academic literature and some jurisdictions have addressed the need for cross-sectoral integration of services into public policies.[32, 33] In Alberta, various factors influence collaboration across ministerial boundaries including local service delivery structure, program mandates, and program eligibility criteria.[34]

Study objectives and research questions

The overall objectives of the study were to identify the facilitators and barriers to access to inclusive child care programs and to describe the effective staff practices and program characteristics that enhance inclusion in Alberta programs. The intent was to support the development of viable and meaningful policy options for supporting children with special needs in child care programs in Alberta.

The **research questions** were:

1) What **outcomes** related to child care are **meaningful to families** of children with special needs in Alberta?
2) What are the **facilitators and barriers to access to** inclusive child care from the perspective of parents of children with special needs and child care staff and directors in Alberta?
3) According to the research literature, what child care **staff practices** and child care **program characteristics facilitate meaningful inclusion** of children with disabilities?

4) To what extent are child care **staff practices and program characteristics** that facilitate inclusion self-reported among directors of child care programs in Alberta?
5) Based on self-report from directors of child care programs, what are the **differences** in practices and program characteristics **between programs** that self-identify as **providing care** to children with special needs and those who do **not provide care** to children with special needs?

Study design

The AICCP was a mixed methods study consisting of three parts employing qualitative and quantitative methodologies (see Appendix A for evaluation framework). In **Part 1,** the research team conducted focus group interviews with parents of children with special needs, child care service providers, and child care program directors. The purpose of the focus group interviews was to explore barriers and facilitators to accessing child care programs and the presence of qualities of programs and providers that facilitate inclusion of children with disabilities in child care programs. The parent focus groups also explored the outcomes related to child care that are important to families. **Part 2** consisted of a literature review to determine the staff practices and child care program characteristics related to the outcomes that parents identified as important in Part 1. The results of the focus group analysis and literature review were used to inform the development of a survey which was completed by program directors and contracted family day home agency contacts during **Part 3** of the study.

Ethical approval

Approval to conduct the study was obtained from the Health Research Ethics Board at the University of Alberta and the Conjoint Health Research Ethics Board at the University of Calgary.

Research methodology

The research methods for all three parts of the study, Part 1: Focus Groups, Part 2: Literature Review and Part 3: Survey are described in detail in Appendices B, C and D respectively. An abbreviated description of the methods follows.

Part 1: Focus groups

Focus groups were conducted with parents, approved family day home providers, individuals who work in licensed programs and program directors.

Recruitment

Parents were recruited through the Family Support for Children with Disabilities (FSCD) program[c] to provide a sample that represented varying geographical regions, age groups and diagnoses. The MCYS contacted the selected parents by mail and invited them to participate on behalf of the research team. Parents were eligible to participate if they had at least one child with special needs aged 0 to 12 years, spoke English and had some experience accessing or attempting to access licensed child care programs or approved day homes in Alberta. Centre-based programs and family day home agencies were identified from a database of all licensed child care programs and contracted family day agencies in Alberta provided by the MCYS. Family day homes and child care programs were selected based on their proximity to the focus group locations. All child care providers and program directors were eligible to participate regardless of whether or not they had any experience working with children with special needs.

Data collection

All focus group participants completed a demographic questionnaire. Interview scripts were used to guide each focus group interview.

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[c] The FSCD program provides parents of children with disabilities with funding to access a range of supports and services and to provide some assistance with the costs of raising a child with a disability.

Data analysis

The research team reviewed the digital recordings, transcribed text of the interviews and field notes, and identified phrases, sentences, or paragraphs that informed the research questions. These excerpts were labeled with descriptive codes and organized into themes within each of the focus groups. Final themes were identified based on the themes that were common across the focus groups.

Part 2: Literature review

Methodology

The research team conducted a review of the literature using two main methods: an electronic search and a review of each relevant article's reference list for other applicable publications. Articles were reviewed for relevance and pertinent data from each relevant article was extracted, reviewed and summarized.

Part 3: Survey

Part three of the study was a province-wide survey of child care programs and family day home agencies.

Survey development

The survey was developed using the results of the focus group interviews, and adapting selected questions from the Director's Questionnaire: Attitudes and Experiences Regarding Inclusion of Children with Special Needs in Child Care Programs[35] developed by SpeciaLink, the National Centre for Childhood Inclusion. The results of the literature review also informed the survey.

Survey sample

The survey sample was selected from the MCYS database of licensed child care programs and approved family day homes. All 1877 child care programs in the province were stratified by Child and Family Services Authority Region (CFSA)[d] (Figure 2) and by child care program type (regular day care, family day home, out-of-school care and

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[d] CFSAs are responsible for the planning and delivery of child and family services including child intervention services (child welfare), child care, FSCD, and early intervention and prevention services.

preschool). Eight hundred programs were randomly selected for invitation for participation in the study.

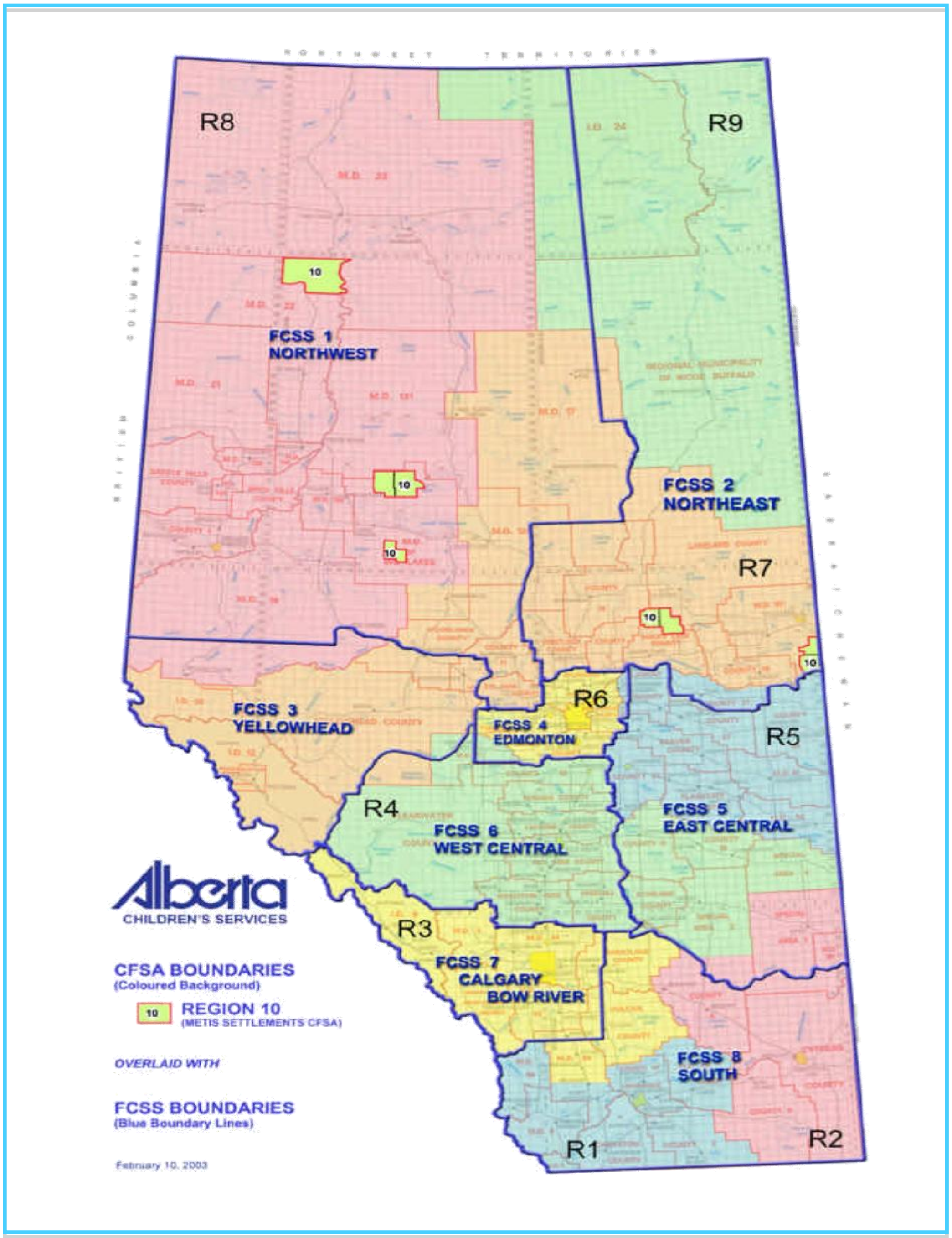

Figure 2: CFSA Regions

Definition of special needs

For the purpose of the survey, a child with special needs was defined as a child with an assessment of a delay or a disorder in one or more developmental domains (social, physical, emotional, cognitive, and communication) that affected the ability of the child to participate in regular child care activities; or an established medical diagnosis that affected the ability of the child to participate in regular child care activities.

Data collection

Study packages were mailed to 800 centre-based programs and family day homes. Respondents returned completed surveys to the researchers. An online version of the survey was also available.

Data analysis

Descriptive statistics were used to describe the characteristics of survey respondents, child care program and family day home agency characteristics and practices. Frequencies and percentages were calculated for categorical variables and means, standard deviations and ranges were calculated for continuous variables. Differences in responses between programs and day homes that had provided care to children with special needs within the past two years and programs and day homes that had not were assessed using Pearson’s chi-square test. Fischer’s exact test was used when cell counts were less than ten. A p-value set at 0.05 was used to assess statistical significance. All statistical analyses were conducted using Stata SE version 11.[36]

Results

Focus group participants

Four focus groups were conducted with parents, three with child care service providers and three with child care program directors in two large urban and three small urban sites in Alberta. Tables 1 and 2 include descriptive information about the focus group participants.

Parents

The majority of parents who participated were from communities with populations of less than 100,000; they had previously accessed child care, worked full-time and had family incomes of over $75,000. Seven participants reported that child care had affected the mothers' ability to work and 2 participants reported that child care had affected the fathers' ability to work (Table 1).

Table 1. Parent focus group participant characteristics (n=12)

Characteristic	N
Community size	
Large Urban (population >100,000)	4
Small Urban (population <100,000)	8
Previously accessed child care	10
Work arrangements	
Full-time	8
Part-time	2
Casual	2
Family income	
0 - 44,999	0
45,000-59,999	2
60,000-74,999	2
Over 75,000	8
Child care affects the mother's ability to work	7
Child care affects the father's ability to work	2

Service Providers

Characteristics of the service providers and directors who participated in the focus groups are described in Table 2. Most participants had experience working with children with special needs (94%). More service providers (64%) had received training to work with children with special needs than directors (35%). On average, directors had more years experience in child care (17 years) compared to service providers (13 years).

Table 2. Director and service provider focus group participant characteristics (n=34)

Characteristic	**N (%)**
Role	
Director	20 (59)
Service provider	14 (41)
Experience working directly with children with special needs	32 (94)
Type of child care program	
Child care program	19 (56)
Family day home	7 (21)
Inclusive child care support program	8 (24)
Received training to work with children with special needs	
Directors (n=20)	7 (35)
Service providers (n=14)	9 (64)
	Mean (SD)
Years of experience in child care	
Directors	16.7 (8.4)
Service providers	12.8 (8.1)

Survey response rate

In total, 343 surveys were returned to the research team from 318 child care program and 25 family day home agency participants. Programs that did not respond were contacted and those who did not receive the survey were eliminated from the sample. Among programs that received the survey, the response rate was 46.8%. Additional information about response rate is included in the study limitations section of this report.

Child care program survey respondents

The characteristics of the child care program respondents are described in Table 3. Most respondents were in director, coordinator or supervisor roles (73%) and had experience working with children with special needs (85%). On average, respondents had 16 years of child care experience, ranging from 0 to 41 years. Most participants (94%) had completed some post-secondary education and approximately one third of the sample had completed a university degree.

Table 3. Descriptive characteristics of child care program survey respondents (n=315 or 316)*

Characteristic	**N (%)**
Role	
Childcare provider	70 (22.2)
Director/Coordinator/Supervisor	230 (72.8)
Owner	16 (5.1)
Experience with children with special needs	269 (85.4)
Education	
High school diploma	10 (3.2)
Certificate or diploma	162 (51.3)
Some post-secondary	39 (12.3)
University degree	99 (31.3)
Other	6 (1.9)
	Mean (SD), Range
Childcare experience	
Number of years	15.6 (9.0) 0-41

*Denominator varies between 315 and 316 due to missing data.

Family day home survey respondents

Descriptive information about the family day home respondents is included in Table 4. Most participants (84%) were agency staff[e] and had experience working with children with special needs (68%). The average number of years of child care experience was 14 years, ranging from 1-42 years. The majority of participants' (75%) had completed a certificate or diploma program.

Table 4. Descriptive characteristics of family day home survey respondents (n=24 or 25)*

Characteristic	N (%)
Role	
Family day home provider	4 (16.0)
Agency coordinator/family day home consultant	21 (84.0)
Experience with children with special needs	17 (68.0)
Education	
High school diploma	2 (8.3)
Certificate or diploma	18 (75.0)
Some post-secondary	0 (0.0)
University degree	3 (12.5)
Other	1 (4.2)
	Mean (SD), Range
Childcare experience	
Number of years	13.9 (9.3), 1-42

*Denominator varies between 24 and 25 due to missing data.

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[e] Agencies are required to have an agency coordinator who manages the day-to-day operations of a family day home program and a consultant/home visitor who monitors homes to ensure adherence to provincial standards. Agency coordinators may also assume the role of the consultant/home visitor.

Child care program descriptive data

Program capacity, ages of children cared for, profit structure, staff-to-child ratios and types of programs offered at the child care programs represented by the study sample are included in Table 5.

Table 5. Child care program descriptive data (n=316-318)*

Child care program descriptive data	N (%)
Program capacity	
Small program (20 children or less)	92 (29.1)
Medium program (21 – 50 children)	127 (40.2)
Large program (51 children or more)	97 (30.7)
Provides care for children aged 0-30 months	154 (48.7)
Provides care for children aged 31 months – 6 years	284 (89.9)
Provides care for children aged 7 – 12 years	127 (40.2)
Profit structure	
Private	124 (39.2)
Not-for-profit	192 (60.7)
Staff-to-child ratios**	
Operates at government mandated ratios	152 (48.0)
Operates over government mandated ratios	165 (52.1)
Provides a regular day care program	142 (44.7)
Provides a kindergarten program	94 (29.6)
Provides an out-of-school care program	138 (43.4)

*Denominator varies from 316-318 due to missing data, **Government mandated ratios provided in Appendix E

Family day home descriptive data

Table 6 provides details of ages of children cared for in the family day home agencies in the survey sample. The family day home respondents were a combination of individual family day homes and agencies that contract day homes. Therefore, the number of day homes represented by each respondent ranged from 1-85 (mean=22.8; SD=22.6).

Table 6. Family day home agency descriptive data (n=25)

Family Day Home Agency Descriptive Data	N
Provides care for children aged 0 - 30 months	25
Provides care for children aged 31 months – 6 years	22
Provides care for children aged 7 – 12 years	19

Provision of care to children with special needs

The majority (91%) of centre-based programs had provided care to children with special needs in the past two years and nearly three quarters (74%) were currently providing care to children with special needs. Among family day homes, 68% had provided care to children with special needs in the past two years and 60% were currently providing care to children with special needs.

Frequencies and percentages of the programs that had provided care to children with specific conditions are summarized in Table 7. Additional descriptive information about children with special needs in Alberta child care programs is included in Appendix F. Child care programs and family day homes reported they most frequently provided care to children with diagnoses of attention deficit hyperactivity disorder, developmental delay and autism.

Table 7. Provision of care to children with special needs by diagnosis

Delay or disorder*	Child Care Programs (n=318) N (%)	Family Day Home Agencies (n=24-25)** N (%)
Attention Deficit Hyperactivity Disorder	124 (39.2)	8 (32.0)
Developmental Delay	106 (33.4)	4 (16.7)
Autism	93 (29.3)	9 (36.0)
Emotional or psychological disorder	47 (14.8)	3 (12.5)
Conduct disorder	32 (10.1)	0 (0.0)
Cognitive impairment	31 (9.8)	2 (8.3)
Down Syndrome	29 (9.1)	2 (8.3)
Hearing impairment	25 (7.9)	0 (0.0)
Heart condition	23 (7.2)	2 (8.3)
Cerebral Palsy	22 (6.9)	0 (0.0)
Visual impairment	16 (5.0)	1 (4.2)
Muscular dystrophy	4 (1.2)	0 (0.0)
Fetal Alcohol Spectrum Disorder	1 (0.3)	4 (16.7)
Other	86 (27.0)	4 (16.7)

*Categories are not mutually exclusive; **Number of responses varies between 24 and 25 due to missing data.

An analysis of natural proportions was conducted to explore the extent to which children with disabilities are included in child care programs. The principle of natural proportions has been used as an indicator to evaluate inclusion. That is, if children with disabilities are included in programs to the same extent as children without disabilities, the

proportion of children with disabilities in child care programs should be similar to the prevalence of special needs in the community. To examine the extent to which Alberta child care programs demonstrated adherence to the principle of natural proportions, the proportion of children with special needs was calculated based on the reported number of children with and without special needs currently registered in programs. According to the National Centre on Childhood Inclusion, a prevalence of 10-15% is recommended for evaluating the extent programs adhere to the principle of natural proportions. Reported proportions were divided into 3 categories: 1) below, 2) at, and, 3) above the 10-15% range. The results are presented in Table 8.

Table 8. Percentage of programs including children with special needs below (0 – 9.9%) at (10.0 – 15.0%) and above (greater than 15%) estimated naturally occurring proportions in the community by program type

Type of Program	N	0 – 9.9% n (%)	10.0 – 15.0% n (%)	Greater than 15% N (%)
Regular daycare	131	110 (84.0)	8 (6.1)	13 (9.9)
Kindergarten	80	61 (76.3)	5 (6.3)	14 (17.5)
Out-of-school care	122	91 (74.6)	17 (13.9)	14 (11.5)
Other (includes preschool)	116	87 (75.0)	8 (6.9)	21 (18.1)

While most responding programs are operating at levels below expected natural proportions, there were a significant number of programs including a higher proportion of children with special needs. Only a small proportion of programs (6.1-13.9%) reported including 10-15% of children with special needs in their programs.

Survey respondents were asked if child care programs (or family day homes) should provide care to children with various levels of ability (Table 9). Respondents were asked if they felt confident in their program's ability to provide care to children with the same levels of ability. While the proportion of programs that responded that programs should and could provide care were similar, the impairments for which respondents reported greater than 10% discrepancy between ‘should’ and ‘could’ were: children with multiple disabilities, children who are deaf or legally blind, children with severe cognitive impairments, children who require 1:1 assistance, children who use a walker or crutches, and, in particular, children who use wheelchairs. In addition, only 55% of programs indicated that they believe that programs should provide care to children who are, at times, uncontrollably aggressive.

Table 9. Attitudes towards providing care to children with different special needs

Attitudes towards providing care to a child with a:	**Feels programs *should* provide care to a child… N (%)**	**Feels confident their program *could* provide care to a child… N (%)**
Physical disability		
Who uses a walker or crutches	271 (89.1)	237 (77.2)
Who uses a wheelchair	256 (84.2)	191 (62.2)
Behavioural disability		
Who is hyperactive	264 (86.3)	250 (82.0)
With inappropriate social behaviour	221 (73.2)	204 (66.9)
Who is noticeably withdrawn	273 (89.8)	263 (85.7)
Who at times, is uncontrollably aggressive	169 (55.4)	161 (52.6)
Sensory disability		
With visual impairment (can be somewhat but not fully corrected with glasses)	277 (90.8)	259 (84.6)
Who is legally blind	214 (70.2)	161 (52.4)
With a hearing impairment	265 (87.2)	240 (78.4)
Who is deaf	233 (76.4)	177 (57.7)
Cognitive disability		
With a mild cognitive impairment	288 (94.4)	280 (91.2)
With a severe cognitive impairment	207 (68.3)	157 (51.3)
Other		
Who have difficulty with bowel control	187 (61.1)	180 (59.2)
Who requires assistance with self-help skills (e.g. dressing, feeding)	254 (84.1)	240 (78.4)
Who has impaired communication skills	278 (91.8)	263 (87.1)
Who requires 1:1 attention	241 (79.3)	208 (67.8)
With multiple disabilities	204 (67.1)	155 (50.5)

*Denominator varies (n=302-306) due to missing data.

The remaining results of all three parts of the study; the focus groups, the literature review and the survey, are organized according to the five research questions.

QUESTION 1

What outcomes related to child care are meaningful to families of children with special needs in Alberta?

Key Message

Parents of children with special needs who attended the focus groups wanted their children to belong as valued members of communities of people who cared for them. In addition, parents wanted to feel comfortable leaving their child in the care of competent, knowledgeable caregivers.

The two most important outcomes related to child care identified by the parents in the focus group interviews were 1) their child's happiness through acceptance of their child as part of a community of people who cared for them, and 2) their own comfort in leaving their child in the care of competent, knowledgeable caregivers.

Parents shared that they valued child care because it provided opportunities for socialization and facilitated the development of important social and life skills. Ensuring that their children participated in activities with other children offered valuable opportunities for their children to belong to a larger community of individuals who cared for them.

Parents also wanted to feel confident that their children were cared for by competent and knowledgeable caregivers who truly cared about their children. They wanted to feel confident that their children were safe and that the caregivers were adequately trained and educated to care for their children. While parents were willing to work with providers to educate them regarding their children's needs, they expressed the need for improved education for service providers regarding the specific needs of their children's condition and strategies for successful inclusion.

> *I think the main thing that [child care providers] are uncomfortable with is that they just don't know what to expect, or what they would have to do. So if you just train them on what these needs might be, the things they might need to do, what supports they could get to help them do it, they would be more comfortable in doing it.*
>
> ***Parent of a child with special needs***

QUESTION 2

What are the facilitators and barriers to access to inclusive child care from the perspective of parents of children with special needs and child care staff and directors in Alberta?

Key Messages

Respondents demonstrated a commitment to the philosophy of inclusion. However, children with special needs experienced decreased access to child care. Barriers to providing care include inadequate training, lack of flexibility with support staff, challenges with physical accessibility, lack of access to specialized support services and inadequate knowledge about how to access resources and services.

The results of the survey indicated that more than half of all programs (57%) and family day homes (58%) had received requests to provide care to children with special needs within the past two years. **Among the programs and day homes that had received requests, 36% of programs and 29% of family day homes reported being unable to accept children with special needs into care.**

The most frequently cited reasons for not accepting children with special needs into child care programs were: 1) the program was at capacity for all children (66%), 2) the child required more attention than could be provided with staffing levels at the time (34%), 3) the staff were not adequately trained (27%), and 4) the physical environment was unsuitable (22%) (Table 10). Less than half of programs (46%) and very few family day homes (4%) reported that the indoor and outdoor areas of their program or family day home were accessible for children who use wheelchairs.

Table 10. Reasons for being unable to accept one or more children with special needs into child care

Reasons for not accepting children with special needs*	Child Care Programs (n=60-64)** N (%)
Centre/day home(s) at capacity for all children	42 (65.6)
Child required more attention than could be provided with staffing levels at the time	21 (34.4)
Staff not adequately trained	16 (26.7)
Physical environment of the centre/day home(s) was not suitable (e.g., stairs, lighting)	13 (21.7)
Child's behaviour harmful to other children	13 (21.3)
Inadequate access to support services (i.e., inclusion or developmental specialists)	10 (16.4)
Centre/day home(s) at capacity for children with special needs	9 (14.8)
Lack of specialized equipment	7 (11.7)
Child's ability did not fit with centre/day home(s) policy (i.e., child not toilet trained)	4 (6.7)
Policies/procedures specific to programming for children with special needs not in place	2 (3.3)
Insurance costs	2 (3.3)
Concerns about liability (i.e. medical procedures too risky)	2 (3.3)
Staff uncomfortable working with children with special needs	1 (1.6)
The centre/day home(s) does not enroll children with special needs	0 (0.0)

*Categories are not mutually exclusive; **Denominator varies from 60-64 due to missing data.

The survey results indicated that nearly one in five programs (19%) had asked a parent of a child with special needs to withdraw from the program in the past two years. Thirteen percent of family day homes also reported asking a parent of a child with special needs to withdraw from their agency in the past two years. The most common reasons for asking parents to withdraw their children from care were the child's behaviour was harmful to other children (90%) and the child required more attention than could be provided with staffing levels at the time (71%). Other frequently reported reasons for asking parents to withdraw their children were inadequate staff training (22%) and inadequate access to specialized support services (16%). Reasons for asking children to withdraw from programs are provided in Table 11.

Table 11. Reasons for asking parents to withdraw their children with special needs

Reasons for asking children to withdraw*	Child Care Programs (n=49) N (%)
Child's behaviour harmful to other children	43 (89.6)
Child required more attention than could be provided with staffing levels at the time	35 (71.4)
Staff not adequately trained	11 (22.5)
Inadequate access to support services (i.e. inclusion or developmental specialists)	8 (16.3)
Staff uncomfortable working with children with special needs	3 (6.1)
Child's ability did not fit with centre/agency policy (i.e. child not toilet trained)	2 (4.1)
Physical environment of the centre/day home was not suitable (eg. Stairs, lighting)	2 (4.1)
Lack of specialized equipment	2 (4.1)
Concerns about liability (i.e. medical procedures too risky)	2 (4.1)
Policies/procedures specific to programming for children with special needs not in place	1 (2.0)
The centre/agency decided to discontinue providing care to children with special needs	1 (2.0)
Insurance costs	0 (0.0)

*Categories are not mutually exclusive.

The results of the focus groups and survey were similar. Child care providers articulated their responsibility to ensure that the needs of all children, including children with special needs, are addressed. Despite a stated commitment to inclusion of children with special needs in child care programs, directors cited numerous examples of asking parents to withdraw their children or not accepting children with special needs. They were sometimes hesitant to accept children who required additional support and they were particularly hesitant about their ability to provide adequate supports for children with behavioral challenges.

Child care providers also discussed the importance of education and training. They articulated how both specific and general information about supporting children with special needs would increase staff comfort levels and enable the programs to provide quality programming to children with special needs. While increased staff-to-child ratios were deemed important, availability of education and training for these staff was deemed even more crucial to supporting children with special needs. On-site observation and modeling of strategies that could benefit all children was considered crucial because recommendations from off-site services do not always take into consideration important contextual factors in the child care setting. Specialized service providers that provide 1:1 individualized intervention with children need to ensure a way to translate strategies back into the child care setting in order to be consistent with the philosophy of inclusion.

Survey participants were asked to respond to three statements regarding education and training. The results are presented in Table 12. Most participants (86%) perceived that staff required specialized training. Eighty-two percent of participants agreed or strongly agreed with the statement 'increased access to training regarding working with children with special needs is required in order to include children with special needs in child care centres.'

Table 12. Child care program survey participant's responses to statements about training and education related to caring for children with special needs

Statement	Strongly disagree or disagree N (%)	Neutral N (%)	Agree or strongly agree N (%)	Unsure/Don't know N (%)	Total N*
The staff in my centre are adequately trained to work with children with special needs	89 (29.0)	69 (22.5)	136 (44.3)	13 (4.2)	307
Staff require specialized training to improve outcomes for children with special needs	6 (1.9)	29 (9.5)	263 (86.3)	7 (2.3)	305
Increased access to training regarding working with children with special needs is required to include children with special needs in child care centres	16 (5.3)	35 (11.4)	252 (81.8)	5 (1.6)	308

Denominator varies from 305-308 due to missing data.

Approximately one third of surveyed programs (33%) and family day homes (31%) indicated that they did not have the ability to provide the additional support and attention required to support children with special needs at all times. In the focus groups, participants also cited examples in which they were unable to match staff support to individual children's needs. One solution was more flexible use of assistant time within the programs. Child care providers indicated that flexible staff support based on the needs of all children in the program or day home would enable them to provide care to all children. For example, sometimes the most effective service delivery model was to have one supplemental staff person 'float' between rooms to support several children within the program.

Sometimes funding mechanisms and policies presented barriers to a 'program approach' to providing support. Many centre-based programs indicated that additional staff support was essential to the successful inclusion of children with special needs. However, some programs who had more children with special needs in their programs reported having several full time assistants funded by the Family Support for Children with Disabilities Program (FSCD) who worked with individual children within the child care program. Since the funding for these assistants was established through an individual FSCD contract with the children's families, the assistants were at the centre to provide direct 1:1 support for the child. While they acknowledged that some children do benefit or require 1:1 support at all times, they were concerned that having this high level of assistance for some children hinders inclusion by discouraging peer interaction. Two child care program directors shared their experiences:

> *"It is healthy for the child to be with the room staff as well as the aide, because [the child] is not attached just to that one person, and the [regular room] staff has time to form a relationship."*
>
> *"When they have an aide in the room with all these other children the other children see that difference and it singles them out. It is not real inclusion [compared to] that child being in the room as a part of everybody else. They are still followed around by an adult where the other children are not and [the other children] see that difference."*

Focus group participants representing family day homes raised some unique concerns regarding the provision of additional staff support in the home setting. Some family day home providers did not wish to have additional staff support within their home. Several other participants discussed how day home providers needed to have the option of additional support from another caregiver. In one situation, the Child and Family Services Authority paid the provider for an additional child care space which reduced the staff-to-child ratio. While the purchase of an additional child space was appreciated, it did not always ensure that extra support was provided when it was needed. Participants emphasized that **the method of support needed to be flexible in order to the meet the needs of the child in the context of their program**. In one example, a day home agency coordinator discussed how the provision of additional staff support during meal times enabled a day home provider to care for a child with special needs:

> *"I had a provider who had a little girl in her day home and she had support through [a local program]. The child stayed there for 2 years. They had people coming in to help at lunch time with the tube feeding, and taking her to school, and so she had wonderful support. The child stayed in the day home for a while because of that support because the provider felt that she had the support that she needed. When a provider is by herself with six children, she has one child that needs to be tube fed, needs constant redirection and help, and she was taking care of five other children, it does get difficult. She could not probably meet the needs of the child if she did not have that support. "*
>
> ***Family Day Home Agency Coordinator***

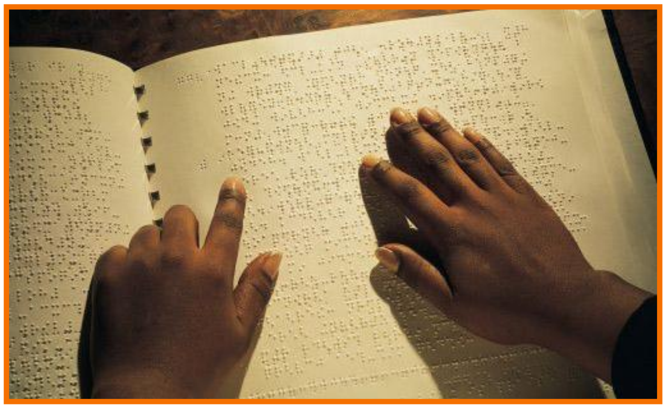
One barrier to obtaining appropriate staff support for staff working with children with special needs was knowledge of existing funding and resources to support children with special needs in child care settings. The programs were surveyed about their awareness of funding available to support children with special needs. Among programs providing care to children aged 0 months to 6 years, 30% were unaware that Program Unit Funding (PUF) from the Alberta Ministry of Education could be used to support eligible children (aged 2 ½ to 6 years) in approved child care settings. Almost half (43%) of all programs were unaware of Family Support for Children with Disabilities (FSCD) funding and more than a third (35%) were unaware that Child and Family Services Authorities could provide funding to support children with special needs.

When focus group participants were asked about their knowledge of funding for staff support, many directors and providers thought that additional funding or support was unavailable to them. **When providers were aware of available funding and resources, processes for obtaining additional funding from their Child and Family Services Authority were often described as difficult and time-consuming. Therefore, some child care providers decided that it was not possible to accept children who required additional support.**

Survey respondents were asked about the use of Program Unit Funding provided by the Alberta Ministry of Education (PUF) to support eligible preschool children in approved programs. Sixty-five percent of the programs had provided care to one or more children who had accessed PUF to support their educational program at the centre. Among programs that offered year round child care programs and programs that had provided care to at least one child who received PUF to support their educational program, 18% of respondents reported that they decided to discontinue care during school holidays. Focus group participants also reported that they had asked parents to find alternative care arrangements during the school holidays because of the gap in funding over the holidays.

Specialized Support Services[f]

Access to specialized support services was reported to be a facilitator to inclusion while lack of access was reported to be a barrier. The need for accessible support service providers that offer consultation specific to the child in the context of their child care setting was the most prominent theme across all of the focus groups. While behaviour consultants were most frequently identified, providers also mentioned the need for speech and language pathologists, occupational therapists, and physical therapists. Child care providers did not feel they could meet the needs of children with special needs without the assistance of specialized service providers who give individualized recommendations for children in the context of their program.



Of the surveyed programs and Family Day Homes that had provided care to children with special needs in the past 2 years, 153 programs (59%) and 9 family day homes (53%) had accessed specialized support services for children with special needs. Providers who were satisfied with their specialized support services perceived that they decreased frustration, fatigue and stress among staff, contributed positively to an appreciation of diversity among staff and the children, increased participation of children with special needs and facilitated quality programming for all children. Surveyed programs and family day homes that had accessed support services for children with special needs within the past two years were asked if they believed they enhanced the ability of children with special needs to participate in activities with other children at the centre. Nearly all respondents from centre-based programs (94%) and all family day homes (100%) who had accessed specialized support services reported that these services

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[f] Specialized support services refers to individuals who provide consultative support to children with special needs in early learning and care settings. Specialized support services include, but are not limited to, behaviour consultants, speech language pathologists, and occupational and physical therapists.

had enhanced the ability of children with special needs to participate in program and day home activities.

In the focus groups, parents and providers discussed challenges with accessing support services due to challenges with ‘navigating the system’. In this context, the system consisted of resources, supports and services across ministries and service sectors to support children with disabilities and their families. In Alberta this includes, but is not limited to, the Ministries of Education, Health and Wellness and Children and Youth Services. Parents, directors and providers expressed how they frequently did not have adequate information about supports and services. It was frequently overwhelming for child care providers and parents to secure services and coordinate those services across multiple agencies. Sometimes child care providers were the first to identify children’s needs but they were often unable to secure the appropriate resources for families.

Child care providers were uncomfortable assisting families access diagnostic resources when they were not confident they could also help them access the appropriate follow-up (intervention) services. Several providers and parents indicated that a centralized agency or common contact person could assist significantly with system navigation and service coordination. The notion of ‘one stop shopping’ to access these types of services was articulated by many child care providers and parents.

> *If you had a centralized agency- one person- that was able to help you navigate, I think that it would make it a lot easier. Then not only would you be facilitating things for the parents, but you would actually know how many kids are accessing these services.*
>
> ***Parent of a child with special needs***

Many directors indicated that parents need significant help with accessing information about resources and supports but they did not have the time or the knowledge to help parents navigate the system. The responses to one question in the survey also indicated that child care programs are willing to take on some responsibility for helping families navigate services. In response to the statement: 'It is the role of the centre to provide parents of children with special needs with information on supports and services in the community and to help them navigate services' 58% of respondents agreed or strongly agreed while only 14% disagreed or strongly disagreed.

In the focus groups, the need to increase collaboration across service sectors, particularly with education-based programs was a prevalent issue. Child care programs that accessed Program Unit Funding (PUF) indicated that child care and education systems operated independently of each other. It was rare for child care and education support services to attend a joint meeting, even when working with the same child. Sometimes working parents were encouraged to access education-based preschool programs outside of the child care program. Transportation to and from the programs often proved to be challenging to parents who had to reduce their work hours or change jobs in order to accommodate the schedule. One parent discussed how school/child care transportation issues resulted in reduced ability to work which resulted in the inability to afford specialized equipment for her daughter (i.e., mechanical lift for her powered wheelchair). Many child care providers were unaware that PUF could be used to support children in Alberta Education approved child care programs. Conversely, some parents felt that child care programs that accessed PUF for their programming were not open to the child accessing a different education-based program outside of the centre. Providers and parents felt that increased coordination, particularly between child care and education, would result in more effective programming and transition planning, decreased stress for parents and providers and more efficient use of resources.

QUESTION 3

According to the research literature, what child care staff practices and child care program characteristics facilitate meaningful inclusion of children with special needs?

Key Messages

The majority of research regarding child care staff practices and program characteristics that facilitate inclusion is descriptive. There are few methodologically rigorous studies that have evaluated the effects of staff practices and program characteristics on successful inclusion. However, the research does suggest that meaningful collaboration with families, active coaching by classroom staff (particularly for children with more severe disabilities), positive attitudes towards the philosophy of inclusion, and training and on-site consultation by specialized support service providers may enhance the inclusion of children with disabilities in early childhood education and care settings.

Articles included in this summary of the literature are summarized in Appendix F.

Service Delivery Models

There is a limited amount of research on service delivery models related to inclusion in early childhood settings and few studies have evaluated the effects of service delivery models on inclusion. However, components considered to be important for successful inclusion of children with disabilities in early childhood settings include specialized related support services[37, 38] and the development of collaborative relationships with families.[39-41] Service delivery models for specialized service providers varied from direct service (on-site therapy) and consultation to collaborative service (special education and teacher sharing responsibilities).[42] Guralnick et al. (2006)[43] conducted a randomized controlled trial to evaluate the effects of a consultative model for enhancing the social developmental of young children with developmental delay. Children in the intervention group demonstrated modest improvements in social skills compared to the control group. Palsha and Wesley (1998)[44] found that the quality of preschool program settings measured by the Early Childhood Environment Rating Scale (ECERS)[45] improved after staff training and consultation; however limited inferences about the effectiveness of the training can be made based on the lack of a control group.

Staff practices and program settings

Enrolment of children with special needs in early childhood programs does not necessarily ensure that the instruction will meet their developmental needs.[46] Successful inclusion of children with disabilities in early education and care settings requires specific strategies and supports. Specialized instructional strategies include group instruction and naturalistic interventions.[47] Research on the effects of inclusive settings on the social development of children with disabilities is inconclusive. Some research has suggested that there is no difference in the amount of social interactions between inclusive and segregated settings[48-50] while other research suggests that inclusive settings are associated with increased social interactions.[10, 51-56]

Children with more severe disabilities can interact with children without disabilities, however successful interactions likely require some degree of adult coaching[10] or peer-led strategies. For example, some studies have demonstrated increased social interaction between children with disabilities and children without disabilities following teacher-led group activities aimed at friendship.[57-65] Peer-led strategies may also be effective at improving social interaction. Interactions between children with autism and their peers improved after peers were taught to acknowledge and respond to the behaviour of their classmates,[66] initiate social interactions[67, 68] and use self-reflective evaluations and social strategies.[69] In addition, interactions between children improved after use of a peer buddy program in which children were taught to ‘stay, play and talk’ to their classmates with disabilities.[70] Interactions between children have increased following implementation of other peer buddy programs.[71, 72]

Children with disabilities appear to benefit from inclusive early childhood settings more than segregated settings. Research conducted by Hundert et al. (1998)[48] suggests that children with severe disabilities in inclusive settings experienced greater developmental gains than children with severe disabilities in segregated settings. Bruder and Staff (1998)[73] found that while segregated classrooms had a higher frequency and intensity of developmental support services, there was no difference in developmental outcomes between young children with moderate and severe disabilities in inclusive and segregated classrooms. In addition, children with mild developmental delays in inclusive settings improved on social-emotional outcomes to a greater extent than children in segregated settings.[11] Children with developmental delays in inclusive play groups engaged in higher levels of play and engaged in more social interactions than children in the non-integrated groups.[74] Typically developing children were also more interactive in the integrated groups compared to the group with only typically developing children.

Despite this growing body of evidence that supports the inclusion of children with more severe disabilities in inclusive settings, research suggests that early education and care providers may be more comfortable providing care to children with mild disabilities. While one study suggested that children with severe disabilities were as likely to participate in inclusive preschool settings as children with mild disabilities,[75] other research suggests that children with more severe disabilities may not experience equal access to inclusive settings. For example, service providers and administrators report that children with mild disabilities are more likely to be included in preschool programs than children with multiple or severe disabilities.[37, 76, 77] In another study, children with mild disabilities were more likely to participate in inclusive settings while children with more severe disabilities were more likely to receive programming in segregated settings.[78]

In interviews with 92 parents and preschool staff, trained and qualified personnel, adequate staff-to-child ratios, training, program philosophy, ‘open-minded’ teachers and administrative support were deemed to be important elements of program quality.[41] Overall, the research literature suggests that the quality of programs in inclusive settings is comparable and perhaps higher than the quality of care in non-inclusive settings. In one study in the United States, 52% of inclusive programs and 48% of segregated programs were rated as good quality on the Early Childhood Environment Rating Scales (ECERS) and the Classroom Practices Inventory.[79] In another study of 118 preschool programs, inclusive programs had higher program quality (as rated by the ECERS) than programs that did not accept children with disabilities.[80] Buysse et al. (1999)[80] found that teachers with higher levels of education appeared to provide programs of higher quality (as rated on the ECERS). There is some evidence that higher quality scores were associated with increased teacher knowledge of child development, and improved gains in cognitive, language, and social development of children without disabilities.[81-83] An investigation of the characteristics of child care providers in inclusive and non-inclusive settings from the perspectives of providers and parents found that providers in inclusive programs rated themselves higher in quality than the non-inclusive programs.[29] Training programs designed to improve the quality of child care for all children, including children with disabilities, may be effective for increasing overall program quality.[84]

QUESTION 4

To what extent are the child care staff practices and program characteristics considered important for including children with special needs self-reported among directors of child care programs in Alberta?

Key Message

Survey respondents reported positive attitudes towards the philosophy of inclusion. However, the development of policies to support inclusion and formalized, goal setting processes with families were not widespread practices. Knowledge about specialized support services and success in accessing these services was inconsistent among child care centres and family day homes agencies in Alberta.

Attitudes of program staff and directors towards inclusion

Child care providers who participated in the focus groups described many positive experiences working with children with special needs. They articulated how inclusion was beneficial for all children, staff and parents; having children with special needs in child care created opportunities for all children and staff to develop empathy and an appreciation of diversity and acceptance of individual differences. They also perceived that inclusive child care provided many opportunities for children without special needs and their parents to be sensitized to disability issues. Children with special needs develop friendships and become familiar with routines that will facilitate their transition to school. A director of a child care program shared her perceptions of how inclusive child care enriched her program:

> *"What I love about inclusion is everyone is together and [children with special needs] are able to learn from their typical peers, but typical peers can also have a really beautiful opportunity to learn and watch and accept, and honor those children as well. It is a learning experience for every individual in that classroom. I think it creates so much richness in a program and lot of value building."*

In the survey, respondents were asked how their commitment to providing child care to children with special needs had changed over the past two years. Very few of child care program respondents (4%) and none of the family day home respondents indicated their level of commitment to inclusive child care had decreased over the past two years. Similarly, in response to a question about whether their comfort level for providing child care to children with special needs had changed compared to two years prior, only 4% of child care program respondents and 4% of family day home respondents indicated that their comfort level had decreased.

The child care program participants' responses to the extent they agreed (or disagreed) with statements about their attitudes towards inclusive child care suggested that the majority of providers are committed to the concept of inclusive child care. The results suggest that respondents consider the inclusion of children with special needs in child care beneficial for staff and children with and without special needs. Results of attitudinal questions are summarized in Table 13.

Table 13. Child Care Program participants' responses to statements regarding attitudes towards inclusion

Statement	Strongly disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly agree N (%)	Unsure/ Don't know N (%)
If would be better to have specialized programs for children with special needs rather than have all programs be inclusive	69 (22.6)	116 (37.9)	64 (20.9)	26 (8.5)	14 (4.6)	17 (5.6)
Having children with special needs in child care benefits children without special needs	7 (2.3)	4 (1.3)	30 (9.8)	121 (39.4)	138 (45.0)	7 (2.3)
Having children with special needs in child care creates opportunities for all children to learn about the value of individual differences	6 (2.0)	2 (0.7)	10 (3.3)	116 (37.7)	171 (55.5)	3 (1.0)
Support required for children with special needs takes away from other children at the centre	58 (19.0)	128 (42.0)	48 (15.7)	46 (15.1)	11 (3.6)	14 (4.6)
Parents of other children might not like it if we have children with special needs in the centre	46 (14.9)	114 (37.0)	40 (13.0)	73 (23.7)	11 (3.7)	24 (7.8)
Staff in the centre might not like it if we have children with special needs in the centre	79 (25.7)	118 (38.4)	57 (18.6)	29 (9.5)	8 (2.6)	16 (5.2)
Having children with special needs in the child care benefits the centre staff	3 (1.0)	17 (5.6)	60 (19.7)	129 (42.3)	87 (28.5)	9 (3.0)
I am interested in having children with special needs in my child care centre	2 (0.7)	6 (2.0)	75 (24.7)	124 (40.8)	85 (28.0)	12 (4.0)
Liability issues present a significant barrier to providing child care for children with special needs.	36 (11.8)	82 (26.9)	79 (25.9)	40 (13.1)	11 (3.6)	57 (18.7)
I feel confident in the ability of my centre to provide care for children with special needs	6 (2.0)	28 (9.2)	67 (22.0)	113 (37.1)	77 (25.3)	14 (4.6)
Centres should collaborate with service providers in other service sectors (e.g. health and education) who work with children with special needs in the centre	0 (0.0)	0 (0.0)	19 (6.2)	122 (39.6)	157 (51.0)	10 (3.3)

Denominator varies (n=292-308) due to some missing data.

Policies to support inclusion

The results of the survey indicated that 48% of child care programs and family day homes have written policies regarding children with special needs. The most frequently reported policy areas for centre-based programs were: 1) confidentiality (84%), 2) involvement and communication with families (84%), 3) enrollment of children with special needs into the program (73%) and staff role in coordination with other service providers (e.g. health, education, therapists) (61%). Similarly, the most commonly reported policy areas for family day home agencies were: 1) confidentiality (83%), 2) enrollment of children with special needs (75%) and 3) involvement/communication with families (67%). Policy areas reported by child care programs are reported in Table 14.

Table 14. Components of centre-based program policies

Policy component*	Child Care Programs (n=153) N (%)
Confidentiality (i.e. staff are aware of privacy legislation and principles)	129 (84.3)
Involvement/communication with families	129 (84.3)
Enrollment of children with special needs into the centre/family day home(s)	112 (73.2)
Staff role in coordination with other service providers (e.g. health, education, therapists)	93 (60.8)
Staff participation in professional development and training on inclusion	87 (56.9)
Creation of individual program plans	77 (50.3)
Provision of health care routines (i.e. responsibilities of program staff)	71 (46.4)
Revision and maintenance of individual program plans	71 (46.4)
Minimum qualifications of service providers	70 (45.8)

*Categories are not mutually exclusive.

Collaboration with families

Two thirds (67%) of child care programs reported they met formally with parents of children with special needs to discuss their children’s goals. Of these programs, 43% had meetings 3-4 times per year, 25% had meetings monthly or more frequently, 17% met 2 times per year or less and 15% met as needed. Less than a third (31%) of family day homes met formally with parents of children with special needs. Of the family day homes that did hold meetings, 75% met monthly or more and 25% met as needed.

The survey results suggest that parents are involved in establishing funding and/or finding a support aide or additional staff person for centre-based care in over half of the programs. Specifically, 19% of child care program survey respondents reported that, in their programs, parents are primarily responsible for establishing funding or finding the support aide and 39% of respondents reported that establishing funding/support aid is a collaborative effort between the parents and the program director or program staff. The focus group data supported these findings as some directors spoke about the need for parents to find support staff before the child was accepted into the program. In some instances, the parent was unable to secure support in a timely manner which delayed the onset of child care.

> *In our center, we had to say to a parent that we couldn't take the child until the support worker came. They [the family] had a support worker lined up, and then she couldn't make it. We let the child come one day, but we are so short staffed some of the time that we are not able to take the children with special needs. So for about three weeks he was unable to come, until they [the family] got someone from [community agency] who would come in. After that, the Program Unit Funding kicked in.*
>
> ***Child Care Program Service Provider***

Surveyed programs that had accessed specialized support services were asked whether the parent or the program was primarily responsible for arranging the specific specialized support service. In response to the statement 'It is the role of the centre to provide parents of children with special needs with information on supports and services in the community and to help them navigate services' 58% of respondents agreed or strongly agreed. Respondents indicated that most of the support services were arranged by the program with the exception of hearing and vision consultants which were primarily arranged by parents (Table 15).

Table 15. Primary responsibility for arranging specialized support services among child care programs

Specialized support services	N	Arranged by parent N (%)	Arranged by program N (%)	Arranged by both N (%)
Early childhood education (ECE) consultant	57	10 (17.5)	43 (75.4)	4 (7.0)
Education consultant/teacher	41	9 (22.0)	30 (73.2)	2 (4.9)
Hearing consultant	30	17 (56.7)	9 (30.0)	4 (13.3)
Nurse	14	3 (21.4)	11 (78.6)	0 (0.0)
Nutrition consultant	19	7 (36.8)	11 (57.9)	1 (5.3)
Occupational therapist (OT)	75	27 (36.0)	45 (60.0)	3 (4.0)
Physical therapist (PT)	47	15 (31.9)	31 (66.0)	1 (2.1)
Psychologist	38	15 (39.5)	18 (47.4)	5 (13.2)
Speech language pathologist (SLP)	10	39 (36.5)	60 (56.1)	8 (7.5)
Vision consultant	14	10 (71.4)	4 (28.6)	0 (0.0)
Emotional/behavioural consultant	50	17 (34.0)	32 (64.0)	1 (2.0)

Access to specialized support services

Of the surveyed programs and family day homes, 60% of child care programs and 53% of family day homes had accessed specialized support services for children with special needs. Services commonly accessed were speech language pathologists (SLP), occupational therapists (OT) and early childhood education (ECE) consultants. Family day homes often reported accessing emotional/behavioural consultants and nutritional consultants. **While reliable access to specialized support services was deemed as crucial by the focus group participants, 36% of surveyed programs and 40% of family day homes were unaware of how to access special support services for children with special needs.** Among those programs and family day homes that were aware of how to access specialized support services, 43% of programs and 57% of family day homes were unsuccessful at consistently receiving the supports requested.

Highlight on Success

There were outstanding examples of supports for inclusive practices in Alberta. One support program in a small urban community worked collaboratively with child care centres and parents to set individual goals, coordinate with other programs and services, secure funding for additional staff support in child care settings (including family day homes), and facilitate the transition to school. This program also loaned specialized equipment, provided short-term aide support, modeled individualized strategies for inclusion and child development, and provided staff with specific information about the child's diagnosis and support needs.

Formalized goal-setting with families

When survey participants were asked to rate the extent to which they agreed with the statement 'all children with special needs should have individual program plans that document goals, strategies and progress', most respondents (81%) agreed or strongly agreed. Fifty six percent of programs and 20% of family day homes that provide care to children with special needs have goal and or program planning documents for individual children. A description of who is primarily responsible for the development of goal and program plans at child care programs is described in Table 16.

Table 16. Primary responsibility for developing program plans

Person responsible for program goals and plans	Child Care Programs (n=142) n (%)
Parents have the primary responsibility for setting goals	5 (3.5)
Program staff/centre director/agency coordinator sets goals and parents approve them	30 (21.1)
Responsibility for goal setting fluctuates between staff/centre director/agency coordinator and parents depending on family situations and needs	83 (58.5)
Other	24 (16.9)

QUESTION 5

Based on self-report from directors of child care programs, what are the differences in practices and programs characteristics between programs that self-identify as providing care for children with special needs and those who do not provide care to children with special needs?

Key Message

Child care centres and family day homes that included children with special needs were more likely than those that did not include children with special needs to: have their staff attend ongoing training, operate above government-required staff to child ratios, have written policies that support inclusion, have written policies regarding children with special needs and to be aware of Program Unit Funding (PUF).

Differences between non-inclusive and inclusive[g] child care programs were analyzed and the results are summarized in Table 17. Inclusive child care programs were more likely to have their staff attend ongoing training, operate above government required staff-to-child ratios, have written policies that support inclusion, have written policies regarding children with special needs and be aware of PUF for children with special needs (all $p \leq 0.05$). Differences were not observed for program location, profit structure (i.e., not-for-profit, private), type of childcare program, waitlist management, survey respondent attitude,[h] and awareness of FSCD funding.

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[g] Inclusive child care programs were defined as those programs that had enrolled at least one child with special needs within the past two years.

[h] To determine if attitudes towards the philosophy of inclusion were related to inclusion of children with disabilities, the scores of four attitude questions were added to create a composite attitude score. Respondents considered to have a more positive attitude towards inclusion had a score of 12-16 while respondents who scored less than 12 were considered to have a less positive attitude towards inclusion.

Table 17. Differences between inclusive and non-inclusive child care programs

Characteristic	Not Inclusive N (%)	Inclusive* N (%)	p-value
Centre location			
Urban	46 (78.0)	191 (73.6)	0.502
Rural	13 (22.0)	68 (26.3)	
Requires staff who provide care to children with special needs to attend ongoing education and training	8 (14.3)	125 (49.6)	<0.001**
Centre profit structure			
Private	24 (40.7)	100 (38.9)	0.802
Not-for-profit	35 (59.3)	157 (61.1)	
Provides a regular day care program	27 (45.8)	114 (44.0)	0.807
Provides a kindergarten program	14 (23.7)	80 (30.9)	0.277
Provides an out-of-school care program	28 (47.5)	110 (42.5)	0.486
Centre staff-to-child ratios			
Operates above government staff-to-child ratios	22 (37.9)	143 (55.2)	0.017**
Operates at government staff-to-child ratios	36 (62.1)	116 (44.8)	
Waitlist management			
Children with special needs have the same priority as children without special needs	23 (85.2)	120 (67.8)	0.210
Children with special needs are given a higher priority	0 (0.0)	7 (100.0)	
Priority depends on the nature of the child's needs or the ability of the centre to secure supports and/or resources	4 (14.8)	50 (28.3)	
Attitude toward providing care to children with special needs	24 (13.7)	151 (86.3)	0.725
Combined score of 12 or greater	16 (15.5)	87 (84.5)	
Combined score of less than 12			
Centre has written policies regarding children with special needs	11 (18.6)	142 (54.8)	<0.001**
Centre has written inclusion policies			
No written policies	29 (49.2)	63 (24.2)	<0.001**
Has written policies that support inclusion	30 (50.9)	192 (75.3)	
Awareness of Program Unit Funding (PUF)	32 (59.3)	186 (72.7)	0.050**
Awareness of Family Support for Children with Disabilities (FSCD) funding	28 (49.1)	151 (58.8)	0.184

*Inclusive child care programs were defined as those programs that had provided care to at least one child with special needs in the program within the past two years.

** Statistically significant (p ≤ .05)

Study limitations and considerations for interpretation of results

Survey response rate and non-response bias

Key Message

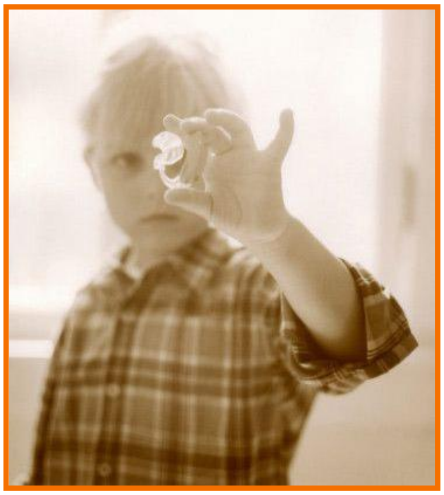
The survey had more responses from centres that included children with disabilities in their programs. Therefore the commitment to inclusion may be overstated in the results.

Representative samples in survey research are desirable in order to make inferences about larger, unobserved populations. While response rate is an important factor, there are other factors that may be more useful in determining the how representative the sample is of the larger population. Response rates may or may not affect the ability to make inferences to a larger population, depending upon whether or not the survey non-responders would have answered differently than the individuals who responded to the survey. For example, a very high survey response rate may not represent the population if the individuals who did not respond were fundamentally different than the responders. Alternatively, a survey with a low response rate may actually provide an accurate estimate of the population if responders and non-responders are similar.

Inability to contact particular groups of individuals and refusals to complete surveys are of particular concern to researchers because it is possible that there was a systematic reason for non-contact or refusal that would affect study results. Inability to contact particular programs is likely not a source of non-response bias for this study. There were likely some surveys that did not reach the intended recipients that were not returned to the researchers. However, it is unlikely that there was a systematic reason for certain types of programs to not receive the survey.

An analysis comparing regional response rates to regional populations indicated that the proportions were not statistically different.[i] The proportion of private programs and day home agencies in the AICCP sample (39%) was also very similar to the actual proportion of private programs within the province (43%).

Some research suggests that individuals who work with children with special needs can develop more positive attitudes toward inclusion; in one study teachers who did not support inclusion became much more supportive of inclusive programming once they had the opportunity to see how inclusion can benefit all children.[21] Although programs who did not provide care to children with special needs were encouraged to participate in the survey, it was possible that program directors and day home agency coordinators who had worked with children with special needs were much more likely to respond to a survey about inclusive child care.



To determine if responders differed from non-responders on the extent to which they include children with disabilities, the researchers contacted 50 programs or day home agencies that did not respond to the survey and inquired as to whether they had cared for a child with special needs within the past two years. Of the fifty programs contacted, 31 (62%) said they had cared for at least one child with special needs in the past two years and 19 (38%) had not. These

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[i] The distribution of child care centres who participated in the survey from urban, small urban and rural regions was compared to the provincial distribution of child care centres in urban, small urban and rural communities to determine if care centres from rural communities were over-represented in the results. Over representation of programs from rural communities may limit the generalizability of the results to child care centres in small urban and urban settings. The nine Child and Family Services Authority Regions (figure 2) were used to categorize the centres in the study sample and in the population using the Ministry of Children and Youth Services database containing information on all day care, out of school care and preschool programs in Alberta. Centres in regions 3, 4 and 6 were categorized as urban, centres in regions 1 and 2 were categorized as small urban and centres in regions 5, 7, 8 and 9 were categorized as rural. The proportion of urban, small urban and rural child care centres in the study sample was compared to the provincial proportions using Pearson's Chi-square test. The results indicated that the study sample distribution was not different from the population distribution (p=0.102), suggesting appropriate representation of urban, small urban and rural centres. The proportions of centres by community size for the study sample and population are presented in Appendix H.

proportions were significantly different from the proportions in the AICCP sample where 259 (91.45%) programs responded yes to the same question (Chi square, p<.01). Although the post-hoc analysis of a sample of non-responders suggests that responders were more likely to have provided care to children with disabilities than the non-responders, it is not possible to determine how non-responders would have answered questions differently. Therefore when interpreting the results of this study, it is important to consider that the results may not be generalizable to all programs that have not provided care to children with special needs. However, since many of the questions in the survey are specifically for programs that did have experience working with children with disabilities, it is reasonable to conclude that the results of these questions are generalizable to the population of child care programs that provide care to children with special needs in Alberta.

Interpretation of the results of the qualitative research

Key Message

Recruitment for the focus groups with parents was challenging and therefore it was difficult to recruit the targeted number of families for the focus groups. The findings of the focus groups with parents, while helpful in interpreting the results of the study, is likely not of adequate depth to stand alone.

The focus groups used in this study informed the development of the survey and provided information that assisted with interpretation of the survey results. The complementary use of qualitative and quantitative data and different data sources (parents, front-line providers and directors or family day home agency coordinators) provided a higher level of confidence in the validity of the survey and the interpretation of the results. For example, the survey results indicated that attitudes towards inclusive child care were generally positive among survey respondents; however a more positive attitude towards inclusion was not associated with providing care to children with special needs within the past two years. Without consideration of the focus group data, this was a surprising finding; however the focus group participants had discussed how they valued inclusion but that they needed to have additional supports in order to provide care to children with disabilities.

One limitation of the qualitative component of the study was the small number of participants for the parent focus groups and the resulting lack of depth and breadth needed to explicate parents’ experiences. Despite efforts to contact parents, few parents responded to the invitation to participate in the focus groups, perhaps as a result of the many demands on their time. Therefore, the depth and richness of the parent focus group interviews was inadequate for moving beyond a description of the experiences and perspectives of the parents who participated in the focus groups.

Discussion

This study explored facilitators and barriers to access to inclusive child care programs in Alberta and the presence of staff practices and program characteristics that are believed to enhance the inclusion of children with disabilities in centre-based and family day home settings. The results of this study suggest that Alberta child care providers have positive attitudes towards including children with disabilities in their programs and day homes. These findings are consistent with other studies that suggest that service providers in early education and care settings have positive attitudes towards the philosophy of inclusion,[16, 85, 86] particularly after experience working with children with disabilities.[87] Positive attitudes towards inclusion and recognition of the benefits of including children with disabilities in early learning and care settings, is a positive step towards successful inclusion of children with disabilities.[41, 88] Despite the positive attitudes towards the philosophy of inclusion reported by the providers in this study, the results of this study suggest that positive attitudes were not enough. There was no relationship between more positive attitudes towards inclusion and actually including children with disabilities in programs. The results from both the focus groups and the survey indicate that, consistent with research findings elsewhere,[17, 18, 20-22] there are barriers to the widespread provision of inclusive child care in Alberta.

Almost one in three child care programs and family day homes who had been approached by families to provide care for their child with special needs reported being unable to accept those children into their programs or day homes. While many of these programs and day homes indicated that the reason for refusal was that the program was at capacity for all children, a large proportion of programs cited inadequate staffing, inadequate staff training and unsuitable physical environments as reasons for not accepting children with disabilities. The qualitative data from this study also suggested that children with special needs were at a disadvantage in accessing care. In addition to challenges with initial access, a significant number of respondents indicated they had asked parents to remove their child with special needs from the program. Reasons were similar to the centers that had refused care initially, however they also included concern about the child's behavior harming other children as a reason for discontinuing care. Issues associated with staffing levels, staff training and physical environments will be discussed individually.

Participants expressed the need for flexibility in providing staff to support children with special needs in their programs. In this context, flexibility referred to the ability to tailor the program to effectively support the child within their child care setting. The nature and amount of support provided to children with disabilities varies depending upon the interaction between the individual needs of the child and various contextual factors within the child care setting. It has been documented that staff facilitation of social interactions and meaningful engagement of activities is important for the successful inclusion of children with disabilities.[59-64] However, there is also a body of evidence that suggests that 1:1 staff support can actually have adverse effects on peer interactions, stigmatization and over dependency on adults.[89-94] Flexibility in providing staff support is required if child care providers are going to meet the needs of individual children in their programs. In order to ensure consideration of individual needs in context, policies and funding mechanisms must reflect the understanding that the nature and extent of additional staff support will change throughout the day. For example, family day home providers may prefer access to additional support at strategic times throughout their day instead of payment for an additional child space. Child care program providers may benefit from opportunities to have additional support staff 'float' between rooms in their program instead of having support aides that are assigned to individual children within programs. These strategies may also provide more opportunities for capacity building among all staff in child care programs.

Child care program directors and staff may require guidance as to how to determine the support needs of children with disabilities in their child care settings. Giangreco[95] suggests that current approaches to decision-making regarding the provision of paraprofessional supports for children with disabilities in educational settings are inadequate. For example, in many cases the assignment of 1:1 support does not address the goals of parents and teachers including a) increased engagement with the teacher, b) improved attitudes of teachers towards children with disabilities, and c) provision of effective interventions. Giangreco (2010)[95] argues that, in the absence of evidence-based guidelines for determining the need for additional staff support, decision-making tools that consider the fit between the child and the environment are necessary. Decision making tools can offer a systematic process for evaluating the fit between the needs of the individual child and the capacity of personnel, the classroom environment, and natural supports. It is unlikely that decisions regarding the nature and amount of additional staff support required in child care settings based on a child's disability alone will result in the provision of the most appropriate staff supports.

In addition to considering individualized support needs in policies, part of the solution for addressing the need for staff support entails greater awareness among child care programs of the funding and resources available to them. Almost one-third of survey respondents that provided care to children aged 0 to 6 years were unaware that Program Unit Funding was available to support eligible preschool children in approved child care settings and approximately the same proportion were unaware that funding for supporting children with disabilities was available through their local Child and Family Services Authority. A larger proportion (43%) of programs were unaware of Family Support for Children with Disabilities (FSCD) funding despite the fact that funding for a support aide can be provided through an FSCD contract with families. Ensuring that all licensed child care programs and approved family day homes are aware of how to access supports and resources that are available may improve the acceptance rate of children with special needs in child care programs and reduce the incidence of discontinuing care for children with special needs.

Ensuring early learning care staff have access to education and training is believed to be associated with overall quality in child care programs.[25, 27, 88] The need for increased opportunities for staff training regarding the care and education of children with special needs was a finding in this study. While there have been few high quality studies evaluating the effects of training on effective inclusive practices, the literature that does exist suggests that training is an important component of quality in programs that provide care for children with special needs.[41, 44] In a survey of 400 child care providers, lack of knowledge (70%) and lack of confidence (29%) were the most significant barriers to providing care to children with disabilities.[21] In this Alberta-based study, programs that had provided care to a child with special needs in the past two years were more likely to have their staff attend ongoing education and training. It is possible that programs that accept children with special needs recognized the increased need for education and training. Alternatively, increased education and training may better prepare programs to meet the needs of children with disabilities. Regardless, this study suggests the possibility that improved access to education and training could increase the capacity of programs and family day homes to provide care to children with special needs in Alberta.

Education and training regarding strategies for including children with special needs in child care programs can be provided by early childhood education specialists and a variety of other professionals who often work on a consultation basis with children with disabilities in community settings. Specialized service providers observe children in their natural environment and provide individualized strategies for including children in those settings. Specialized service providers can also contribute to individualized goal setting; an important component of planning for successful inclusion.[96] In the Canadian context, Irwin, Lero and Brophy[97, 98] identified several resources required for the successful inclusion of children with disabilities including supports provided to the program by specialists and therapists. This study also suggests that improved access to specialized service providers is an important resource for enhancing the inclusion of children with special needs. Education and training support from specialized service providers could, at least initially, focus on improving the capacity of programs to provide care to children with physical disabilities, sensory impairments, and multiple disabilities. These were the groups of children that survey respondents seemed less confident about their ability to provide care despite feeling that they 'should' provide care. More intense efforts towards ensuring adequate supports for children with behavior challenges seem warranted as the results of this study revealed a lower level of willingness to provide care for these children in addition to a lower level of confidence regarding their abilities to provide care.

A significant barrier to accessing specialized support services was a lack of information about what is available to both parents and child care programs. Access to information about services does not ensure that services are accessible; however it is clear that child care programs will not access support services if they don't know what is available to them. In order to facilitate the successful inclusion of children with disabilities, all programs should be aware of how to access specialized support services in their communities. The challenge of ensuring that families and community services have adequate information about supports and services is reported in the literature.[99-101] A recent study regarding pediatric rehabilitation programs in Alberta also indicated that families and rehabilitation therapists have inadequate access to information about community resources and services.[102] The complexity of pediatric service delivery systems can be a source of stress for families as they consider navigating the service delivery system to be an onerous and time-consuming task.[103, 104] Web-based, centralized information sources are increasingly being developed as information sources for families and service providers. Recently, the government of Alberta has created a website for centralized information about government funded supports and services in Alberta.[105]. Users can search by community to learn about available services and supports. This study and previous research conducted in Alberta suggest that there is a need for increased awareness of available information sources.

Another strategy for enhancing access to coordinated services is the implementation of service coordinators or key workers. In the U.S., Part C of the Individuals with Disabilities Education Act[33] mandated the provision of service coordinators for families of children with disabilities. Service coordinators provide information to families regarding services and supports, and work collaboratively with families to identify service needs and coordinate those services.[106] In England, parents of children with disabilities have access to key workers who assist them with navigating services for their children.[107] Research conducted with early childhood education and care programs in Australia[20] suggests that special needs facilitators could potentially assist with service system navigation and improve access to inclusive child care for children with disabilities. Service coordination is viewed as a crucial component of family-centered service delivery[106, 108-110] since information exchange and access to coordinated services are central components of family-centered care.[111] Research suggests that service coordination may increase parental satisfaction with services,[112] reduce mothers' need for psychosocial supports,[113] and improve access to services.[114] The issue of service coordination expands beyond the services provided by the Ministry of Children and Youth Services, as it is important to consider the cross-sectoral nature of services for children with disabilities and their families.

A large proportion of programs reported inaccessible physical environments. Similar results have been reported elsewhere in the literature. In a recent study conducted in

Ontario, 38% of programs that were identified as providing care to children with special needs would turn away a child based on a physical disability.[23] Considering the low number of child care programs that reported being fully accessible to children who use wheelchairs (46%), and the finding that only 62% of respondents reported that they could provide care to a child who uses a wheelchair, it is evident that children with physical disabilities experience even greater challenges accessing inclusive child care. Efforts towards improving physical access to child care programs may increase the ability of centre-based programs to provide care to children with physical disabilities.

The results of this study suggest that more emphasis needs to be placed on ensuring programs have policies regarding providing care to children with special needs. Less than half of responding programs (48%) had policies regarding children with special needs. Of the programs that did report having written policies, 73% included policies about acceptance of children with special needs. Therefore, overall, only 38% of responding programs reported having policies regarding the enrollment of children with special needs. One strategy would be to mandate the creation of inclusive policies through regulatory frameworks. For example, Manitoba child care regulations state that programs are required to 1) have a written policy on inclusion, 2) provide a program that is inclusive of children with additional support needs, 3) ensure that every child in the Inclusion Support Program has an individual program plan (IPP), and 4) ensure that program staff are aware of the inclusion policy and IPP goals. Policy areas suggested in the 'Writing and Inclusion Policy' guide[115] include 1) access, 2) inclusive environment, 3) meaningful participation, 4) individualized care, 5) family-centered practice, 6) collaboration among partners, and 7) staff supports. The requirement to develop inclusion policies would ensure that all child care programs in Alberta are aware of the Ministry's commitment to ensuring equal access to child care for children with disabilities. In addition, this expectation would place greater attention on the components of care considered important for inclusion of children with disabilities in child care programs and greater awareness of supports and resources.

While individualized goal setting in collaboration with families is deemed important for the provision of early learning and care services, only 56% of programs and 20% of family day homes reported having goal and/or program planning documents for individual children with special needs. Formalized goal setting processes are necessary in order to ensure that program staff are working on goals that are meaningful to families, to identify the supports needed to meet those goals, and to provide a formalized mechanism for evaluating the child's progress. While it would likely be beneficial to support child care programs in the development of formalized goal setting documents, it is important to consider that families who access Program Unit Funding from Alberta Education and Specialized Services funding from the Family Support for Children with Disabilities Program are already involved with goal-setting processes. The requirement for formalized goal setting processes within child care settings should not add additional burden to families. Ideally goal setting processes for young children with disabilities could be integrated across programs providing services to reduce family burden and encourage coordination across services. An excellent example of integrated goal setting processes is the current cross-ministerial pilot project for children receiving specialized services funding through the Family Support for Children with Disabilities program (MCYS) and Program Unit Funding (Education). This project was designed to enhance coordination of FSCD and PUF programs and services across home, school and community settings. While this innovative project provides the opportunities for some families to participate in integrated goal-setting, it excludes some children with

disabilities who do not meet the eligibility criteria for both programs. Accordingly, further work is needed in advancing the opportunity for all children with disabilities in Alberta.

This report has demonstrated the successes and challenges of supporting the growth and development of children with special needs in Alberta child care settings. It is likely that there are many programs that successfully include children with disabilities that were not represented in this study. Future changes to policy, funding mechanisms or supports and services will require celebration of what is working well within the province. Sharing of successful regional practices for facilitating inclusion and consideration of a provincial-wide model for implementation based on existing successful support programs, would likely result in more widespread use of successful practices in Alberta.

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Appendix A

Table 18. Evaluation Framework for the Alberta Inclusive Child Care Project

Research Question	Data Source	Analysis
1. *What* ***outcomes*** *related to child care are* ***meaningful to families*** *of children with special needs in Alberta?*	• Focus groups (parents)	• Thematic analysis (qualitative)
2. *What are the* ***facilitators and barriers to access*** *to inclusive child care from the perspective of parents of children with special needs and child care staff and directors in Alberta?*	• Focus groups (parents, providers, directors) • Survey	• Thematic analysis (qualitative) • Descriptive statistics
3. *According to the research literature, what child care* ***staff practices*** *and child care* ***program characteristics facilitate meaningful inclusion*** *of children with disabilities?*	• Literature review	• Summary of research literature
4. *To what extent are child care* ***staff practices and program characteristics*** *that effectively support inclusion self-reported among directors of child care programs in Alberta?*	• Survey	• Descriptive statistics
5. *Based on self-report from directors of child care programs, what are the* ***differences*** *in practices and programs characteristics* ***between programs*** *that self-identify as* ***providing care*** *for children with special needs and those who do* ***not provide care*** *to children with special needs?*	• Survey	• Chi square analyses • Fischer’s exact test

Appendix B
Focus Group Methodology

Recruitment

Parents, child care staff, directors and family day home providers were recruited to participate in focus groups interviews.

Parents

The Ministry of Children and Youth Services (MCYS) identified 168 parents of children who had accessed the Family Support for Children with Disabilities (FSCD) program. The FSCD program provides parents of children with disabilities with funding to access a range of supports and services and to provide some assistance with the costs of raising a child with a disability. Families were selected based on their proximity (within 50 km) to two large urban and three small urban centres. In addition, families whose children represented different age groups were identified because the researchers wanted to gain insight into the experiences of parents who had accessed child care at different stages (i.e., full-day care, out-of-school care). An effort was also made to invite families with children with varying diagnoses as the research team wanted to ensure that parents with children with different support needs had the opportunity to participate. Further details of the sampling strategy are included in Table 19. The MCYS mailed a study package to the identified families which included an information letter from the MCYS, a letter of invitation from the researchers, a blank form to indicate interest in the study and a postage paid envelope addressed to the research team. Interested parents contacted the research team by mail. Parents were eligible to participate if they had at least one child with special needs aged 0 to 12 years, spoke English and had some experience accessing or attempting to access licensed child care programs or approved day homes in Alberta.

Table 19. Sampling Strategy: Parents of children with special needs

Location	Planned number of focus groups	Targeted number of participants	Letters of Invitation
Edmonton	2	12	12 (0-3 years), 12 (3-6 years) 12 (6-9 years), 12 (9-12 years)
Grande Prairie	1	6	6 (0-3 years), 6 (3-6 years) 6 (6-9 years), 6 (9-12 years)
Calgary	2	12	12 (0-3 years), 12 (3-6 years) 12 (6-9 years), 12 (9-12 years)
Medicine Hat	1	6	6 (0-3 years), 6 (3-6 years) 6 (6-9 years), 6 (9-12 years)
Fort McMurray	1	6	6 (0-3 years), 6 (3-6 years) 6 (6-9 years), 6 (9-12 years)
Total	**7**	**42**	**168**

Service providers

The MCYS provided the researchers with a database of all licensed child care programs and contracted family day agencies in Alberta. Family day homes and child care programs were selected based on their proximity to the focus group locations (Table 20). The research team mailed a study package to the identified child care programs and family day home agencies inviting them to participate. Interested child care providers and directors contacted the research team directly. All child care providers and program directors were eligible to participate regardless of whether or not they had any experience working with children with special needs.

Table 20. Sampling Strategy: Child Care Providers and Directors

Location	Planned number of focus groups	Targeted number of participants	Letters of Invitation
Edmonton	2	12	80
Grande Prairie	2	8	40
Calgary	2	12	45
Fort McMurray	2	8	29
Total	**8**	**40**	**194**

Data collection

Four focus groups were conducted with parents, three with child care service providers and three with child care program directors in two large urban and three small urban sites in Alberta. All participants completed a demographic questionnaire. Interview scripts were used to guide the semi-structured interviews at each focus group (Appendices B2 and B3). All focus group interviews were tape recorded and transcribed verbatim by a professional transcriptionist. The transcripts were checked for errors and imported into NVivo 7[116] for data management and analysis.

Data analysis

Interpretive description[117, 118] was the underlying theoretical framework used to guide the qualitative component of this study. Interpretive description is a ‘generic’ methodology that was developed to capture ‘themes and patterns within subjective perceptions.’[117] Data analysis methods described by Kvale[119] and Tesch[120] were used to guide the data analysis process. The research team reviewed the digital recordings, transcribed text of the interviews and field notes, and identified phrases, sentences, or paragraphs that informed the research questions (meaning units). Meaning units were labeled with descriptive codes and organized into themes across the focus groups. Themes that were common across the three groups of participants were identified as the final themes.

Appendix C
Literature review methodology

The research team conducted a review of the literature using two main methods; an electronic search and a review of each relevant article's reference list for other applicable publications. The following databases were used during the electronic search: SCOPUS, Medline, PsycInfo, Education Resources Information Center (ERIC) and EMBASE. Keywords and combination keywords were used to define/limit the search. Keywords consisted of the following terms "special needs"; "disabilities"; "child care"; "inclusion"; and "inclusive". Relevant articles were selected if the researchers evaluated the effect of staff practices and program characteristics on the inclusion of children with disabilities in regular child care settings. Pertinent data from each article was extracted (i.e., study design, purpose, outcomes, participants and results).

Appendix D
Survey methodology

Survey development

Part three of the study was a province-wide survey of child care programs and family day home agencies. Three primary information sources were used in survey development:

1) The **results of the focus group interviews** which provided insight into potential barriers to access and inclusive programming within child care settings.
2) Some questions were adapted from the **Director's Questionnaire: Attitudes and Experiences Regarding Inclusion of Children with Special Needs in Child Care Programs**[35] developed by SpeciaLink, the National Centre on Childhood Inclusion.
3) The results of the **literature review** that provided information about the practices and program characteristics that may be associated with successful inclusion and the potential barriers and facilitators to access to inclusive child care.

Two versions of the survey were developed, one for administration to respondents from child care programs and one for administration to family day home respondents (both are available upon request). The majority of questions were the same on both surveys, although some questions were specific to the child care program or family day home version.

Four expert reviewers provided feedback regarding survey format and content. The survey was pilot tested with child care program directors and family day home providers to determine appropriateness of questions and time required to complete the survey. In addition, a child care program director and a family day home agency coordinator participated in a cognitive interviewing[121] process to provide insight into potential validity issues and issues with interpretation of questions.

Study population

The survey sample was selected from the Alberta Ministry of Children and Youth Services database of licensed child care programs and approved family day homes. At the time of survey distribution, there were 505 licensed day cares, 555 out-of-school care programs, 700 preschools, and 117 contracted family day home agencies in Alberta. All 1877 child care programs in the province were stratified by Child and Family Services Authority Region (CFSA) and by child care program type (regular day care, family day home, out-of-school care and preschool). 800 programs were randomly selected for participation in the study (Table 21). CFSAs are responsible for planning and delivery of child and family services including child intervention services (child welfare), child care, FSCD, and early intervention and prevention services.

Table 21. Child care programs selected for participation by region

Region	Program Type				Total
	Regular day care	Out-of-school care	Preschool	Family day home	
1	11	14	26	5	56
2	10	9	4	2	25
3	67	71	100	12	250
4	10	12	37	8	67
5	6	6	18	5	35
6	94	93	84	5	276
7	6	13	17	9	45
8	6	5	13	5	29
9	2	4	7	2	15
10	0	1	1	0	2
Total	212	228	307	53	800

Participant recruitment

Potential participants were mailed a study package that included an information letter, a consent form, a paper copy of the survey and an addressed and postage paid return envelope. Programs that did not respond to the first study package by mailing in their completed survey were mailed a reminder letter and a second copy of the survey. For the second mail-out, participants had the option of completing the hard copy of the survey or completing the survey online. Follow-up telephone calls were made to all programs that did not respond to the second mail out to confirm they had received the study package and to invite them to participate.

Data management

The data from the returned paper based surveys were entered into a family day home or child care program specific Excel database using Cardiff Teleform Version 10.1 (2007)[122] which scans and converts paper-based survey data into electronic format. The data from the completed web-based surveys was downloaded directly into the corresponding Excel databases. These databases were merged and new variables were created for program type (family day home or childcare program), region (nine provincial regions), and community size (urban or rural). Prior to the analysis, some of the continuous variables were categorized by identifying categories inductively from the data and some of the categorical variables were collapsed into fewer categories to aid in facilitating meaningful interpretation of the results.

Data analysis

Descriptive statistics were used to describe the characteristics of survey respondents, child care program and family day home agency characteristics and to describe the provision of care to children with special needs. Frequencies and percentages were calculated for categorical variables and means, standard deviations and ranges were calculated for continuous variables. Differences in responses between programs and day homes that had provided care to children with special needs within the past two years and programs and day homes that had not were assessed using Pearson's chi-square test. Fischer's exact test was used when cell counts were less than ten. A p-value set at 0.05 was used to assess statistical significance. All statistical analyses were conducted using Stata SE version 11.[36]

Appendix E

Table 22. Government mandated staff-to-child ratios

Age Group	Staff-to-child ratio
< 12 months	1:6
12 – 18 months	1:8
19 – 35 months	1:12
36 months-53 months	1:16
54 months and older	1:20

Appendix F

Table 23. Centre history of providing care to children with special needs

Has the centre ever provided care to a child with a:	**Yes N (%)**	**No N (%)**	**Unsure N (%)**
Physical disability:			
Who uses a walker or crutches	72 (23.5)	212 (69.3)	22 (7.2)
Who uses a wheelchair	55 (17.9)	233 (75.7)	20 (6.5)
Behavioural disability:			
Who is hyperactive	271 (87.1)	24 (7.7)	16 (5.1)
With inappropriate social behaviour	246 (79.4)	55 (17.7)	9 (2.9)
Who is noticeably withdrawn	182 (60.1)	100 (33.0)	21 (6.9)
Who at times, is uncontrollably aggressive	233 (74.7)	63 (20.2)	16 (5.1)
Sensory disability:			
With visual impairment (can be somewhat but not fully corrected with glasses)	93 (30.2)	182 (59.1)	33 (10.7)
Who is legally blind	21 (6.9)	261 (85.6)	23 (7.5)
With a hearing impairment	108 (35.0)	177 (57.3)	24 (7.8)
Who is deaf	33 (10.8)	247 (80.5)	27 (8.8)
Cognitive disability:			
With a mild cognitive impairment	211 (68.3)	69 (22.3)	29 (9.4)
With a severe cognitive impairment	100 (33.2)	162 (53.8)	39 (13.0)
Other:			
Who have difficulty with bowel control	157 (51.0)	129 (41.9)	22 (7.1)
Who requires assistance with self-help skills (e.g. dressing, feeding)	181 (59.3)	110 (36.1)	14 (4.6)
Who has impaired communication skills	228 (73.3)	71 (22.8)	12 (3.9)
Who requires 1:1 attention	241 (77.7)	58 (18.7)	11 (3.6)
With multiple disabilities	105 (34.2)	173 (56.4)	29 (9.5)

Denominator varies (n=301-312) due to some missing data.

Appendix G

Literature review summary table

Table 24. Literature Review Summary Table

Author (year)	Study design	Purpose	Outcomes of interest (what was measured)	Participants	Results
Cavallaro[37] (1998)	Quantitative Descriptive Survey	To describe the service delivery of inclusive programs for children aged 0 to 5 in California and the availability of inclusive programs for children with disabilities of varying severities.	A 24-item survey was developed to measure structural and organizational components of inclusion programs.	43 administrators of infant and preschool special education programs	The availability and service delivery models used in inclusive programs vary by children's age and severity of disability. Infant services are primarily home-based and generally do not include exposure to children without disabilities while preschool services are mostly inclusive programs for children with milder disabilities and specialized programs for children with severe or low-incidence disabilities. The most common components of inclusive preschool programs were related support services and consultation to families and community early childhood education programs.
Wolery (1993)[76]	Quantitative descriptive survey	To describe the extent early childhood education programs accept children with disabilities over a 5 year period and the diagnoses and ages of preschoolers with disabilities who are being enrolled.	A 25-item survey was developed that included items about demographics, program characteristics, instructional practices, number and type of staff employed, type of disabilities and ages of children attending the program and number of years care was provided to children with disabilities.	483 early childhood educators	75% of responding programs enrolled children with disabilities during the 1989-1990 school year. This proportion had been increasing over the previous 4 years. Children with speech language delays, developmental delays, and behavioral disorders were most frequently enrolled. Respondents reported enrolling children from all the diagnostic groups listed on the survey in approximately the proportions that would be expected for the

					community prevalence of each diagnostic group.
Buysse, 1994[78]	Quantitative descriptive	To investigate the relationship between child characteristics and placement in specialized versus inclusive early childhood programs.	Children were assessed using the Battelle Developmental Inventory[123] to measure developmental status and the ABILITIES Index[124] to measure children's functional abilities. Following the developmental testing, the examiner completed the Carolina Record of Individual Behavior[125] to provide a measure of children's behavioral characteristics.	69 preschool aged children with disabilities in specialized programs and 93 preschool aged children with disabilities in inclusive settings	Children with milder disabilities were more likely to be enrolled in inclusive settings while children with more severe disabilities were more likely to receive programming in segregated settings.
Kochanek, 1999[75]	Quantitative descriptive	To examine the prevalence of inclusive preschools, to identify factors that were associated with inclusive preschools and to describe differences in services between inclusive and non-inclusive preschools.	Data was collected on service utilization, inclusive status of the classroom and characteristics of the child, family and service provider. Parents and providers completed a Family Centered Beliefs Scale which was developed to assess families' and providers' beliefs in family centered approaches.	50 children attending non-inclusive preschools and 64 children attending inclusive preschools	Inclusive programs were less frequently used in high resource communities. Children enrolled in non-inclusive programs received more total hours of service than children in inclusive programs, in particular more hours of group services. Child, maternal and service provider characteristics were not associated with placement in inclusive programs.
Hanline, 1993[10]	Case study	To explore peer social interactions between children with and without disabilities in an inclusive preschool program.	Observations of the children were conducted to collect data on their interactions and code what behaviors occurred, who initiated and terminated the interaction, the length of the interaction, the reciprocal	3 children with severe disabilities and 3 children without disabilities who attended an	Children with severe disabilities have opportunities to interact with children without disabilities in inclusive preschool settings. No interactions between children with disabilities were observed and the majority of interactions for

			nature of specific behaviors within the interaction and how often the interactions occurred.	inclusive preschool	children with disabilities were initiated by peers without disabilities. Children without disabilities responded to the positive initiations of children with disabilities at a lower rate than to children without disabilities.
Dunn, 1993[81]	Quantitative descriptive	To examine proximal quality (actual events experiences by children) and distal quality (experiences potentially available to children) in preschool environments and their relationships with child development.	A parent questionnaire was used to measure child and family characteristics. Classroom observations using the Early Childhood Environment Ratings Scales,[45] interviews and questionnaires with the caregivers were used to provide measures of distal day care quality. The following proximal day care quality components were measured; a) caregiver goals (Educational Attitude Scale, teacher form),[126] b) caregiver strategies (classroom observations and audio recordings) and c) guidance of social-emotional development (audio recordings of caregiver-child interactions). Children's social development was measured using teacher reports on the Sociability subscale of the Classroom Behavior Inventory-Preschool Form[127] and the Preschool Behavior Questionnaire[128] and through observations of social	60 children (1 boy and 1 girl from 30 day care classrooms) and a caregiver from each classroom	Higher distal quality in the classroom was related to improved social and cognitive development and higher proximal quality was related to improved social development but not to children's cognitive development.

			play using the Howes' Peer Play Scale.[129] Cognitive development was measured through teachers' reports on the intellectual subscale of the CBI,[127] through children's scores on the Preschool Inventory-Revised Edition,[130] and through observations of the children's play behaviors using a combination of Smilansky's Cognitive Play Scale[131] and Howes and Stewart's Play with Objects Scale.[132]		
Hestenes, 1993[82]	Quantitative descriptive	To examine the impact of child care quality on the emotional expression of preschool children.	The Early Childhood Environment Ratings Scales (ECERS)[45] were used to measure the global quality of the day care setting. Teachers were observed to describe the frequency of low and high levels of engagement.[132] Children were observed to describe the frequency of positive and negative emotional expressions using coding developed by Caruso, Dunn, Hsu & Hestenes.[133] An abbreviated form of McDevitt and Carey's Behavior Style Questionnaire[134] completed by mothers was used to measure ease versus difficult temperament.	60 children aged 3 to 5 attending day care, their mothers and their day care providers	Children in higher quality settings were found to display more smiling and laughing, to show a greater intensity of this positive affect, and to display less intense negative affect than children in lower quality settings. The appropriateness of care giving (involvement, interaction, encouragement of language, scheduling and supervising) was associated with more positive affect among children. The appropriateness of the activities in the child care centre was not associated with the children's emotional expressions. Children who experienced more instances of high level engagement with their caregivers were more likely to display a higher intensity of

					positive affect while children who experienced more instances of low level teacher engagement were more likely to display more intense negative affect.
Howes, 1992[83]	Quantitative descriptive	To assess the quality of children's relationships with adults and peers in the child care setting.	Classroom observations were conducted to collect measures of quality including adult: child ratios, group size, and process quality using the Early Childhood Environmental Rating Scale[45] or the Infant-Toddler Environmental Rating Scale.[135] Observations of the children allowed for the classification of their social orientation[136]and their interactions with peers using the revised Peer Play Scale.[137] Observers completed the Waters and Deane Attachment Q-Set[138] for the child's primary teacher to provide a measure of the child's attachment behavior.	414 children aged 14 to 54 months attending a child care centre	Appropriate adult-child ratios were associated with classrooms that were rated as good or very good in care giving and activities. Children in classrooms rated as good or very good in care giving were more likely to be securely attached to their teachers. Appropriate group size was associated with classrooms rated higher in activities. Children in classrooms rated higher in activities were more likely to orient to both adults and peers. Children with social orientations to adults and peers were more competent with peers.
La Paro, 1998[79]	Quantitative descriptive	To examine differences in quality and teacher or caregiver characteristics between inclusive and non-inclusive early childhood special education programs.	Classroom observations were conducted to measure the quality of the preschool environment using the Early Childhood Environment Rating Scale[45] and to measure the appropriateness of classroom practices using the Classroom Practices Inventory (CPI).[139] Self report questionnaires were administered to teachers	29 segregated (only children with disabilities) and 29 inclusive (typically developing children with at least one child with	There were no differences in quality based on ECERS scores, classroom observations and teacher self-report questionnaires between segregated and inclusive settings. Half of the inclusive and segregated classrooms met or exceeded the minimal criterion for a good or developmentally appropriate setting.

			and included The Teacher Questionnaire[140] to measure their beliefs about the importance of developmentally appropriate practices for children with and without disabilities and the Instructional Activities Scale (IAS)[141] to measure whether the classroom was developmentally appropriate.	disabilities) preschool classrooms serving children aged 3 to 5	
Buysse, 1999[80]	Quantitative descriptive	To compare the quality of inclusive and non-inclusive early childhood programs and to identify teacher characteristics that predict classroom quality.	The child care centre directors were interviewed to collect information about teacher-child ratios, group sizes, licensure, hours of operation, services and enrollment of children with disabilities. Observations of the classroom setting were conducted using the Early Childhood Environment Rating Scale[45] to measure global quality. Teachers from each program completed the Self-Assessment for Child Care Professionals rating scale (developed for this study) to measure their knowledge and skills in caring for children with and without disabilities.	180 preschool teachers from community-based child care centres	34% of the programs provided care to at least one child with disabilities. Higher quality programs were associated with working in inclusive programs, having a bachelor degree, having more experience in early childhood education and higher self-ratings of knowledge of typical child development.
Buysse, 2001[41]	Qualitative descriptive	To explore parents and professionals perspectives on components of high quality inclusive child care,	Semi-structured interviews comprised of open-ended questions and prompts to gather information on the participant's views of the components of quality	92 participants from 19 inclusive classrooms included: 18 child care	Developmentally appropriate practices and qualified staff were the key components of quality inclusion. Staff-student ratios, adapting the environment and integrating therapies into the

		child and family benefits of quality inclusion and challenges and resources associated with achieving quality inclusion.	inclusion, the benefits and outcomes of quality inclusion and the challenges and resources associated with quality inclusion were audio recorded and later analyzed using a systematic content analysis where the dimensions of quality emerged from the data.	directors, 18 specialists (SLP, ECE etc.), 18 lead teachers, 19 parents of typically developing children, 18 parents of children with special needs.	classroom were important for caring for children with special needs. The key contributors to program quality were access to specialists and resources, teacher training, program philosophy and standards, administrative leadership and support and committed teaching staff. Key benefits of inclusive childcare were improved development, learning and well-being (children with special needs) and acceptance of individual differences.
Palsha, 1998[44]	One group pre-test, post-test	To describe changes in the quality of inclusive preschool classrooms after implementation of an in-service education model to prepare community-based consultants to work onsite in inclusive preschool classrooms.	Observations of the childcare environment using the Infant-Toddler Environment Rating Scale[135] or the Early Childhood Environmental Ratings Scales[45] were used to measure the quality of the classroom setting at 3 time points: 1) prior to consultation; 2) after consultation and 3) at follow-up at 6-12 months after consultation. Consultants completed a questionnaire to measure their satisfaction with training and consultees completed a questionnaire to measure their satisfaction with the consultation process. The consultees also completed a survey at the end of the consultation to rate the	25 early interventionists who work with children with special needs in the community and who participated in inclusion training and 73 program staff from 25 sites served by the interventionists.	The quality of preschool program settings as measured by the ITERS and ECERS improved after implementation of training with consultants on an onsite consultation model.

			consultants' skills.		
Knoche, 2006[29]	Quantitative Descriptive	To investigate who provides care for children in inclusive child care settings, what is the quality of that care and how parents of children with disabilities perceive care.	A telephone survey was developed to describe the characteristics of providers who do and do not provide care to children with disabilities. During program observations quality of care was measured using the Caregiver Interaction Scale,[142] the Infant/Toddler Environment Rating Scale,[135] the Early Childhood Environment Rating Scale-Revised Ed.[45] and the Family Day Care Rating Scale.[143] A survey was developed for parents to describe their expectations and satisfaction with their child care services.	Phase 1: 2022 child care providers; Phase 2: 105 infant providers, 112 preschool providers , 132 family child care providers, Phase 3: 1325 parents of children in a subset of the observed programs	Inclusive providers were more likely to have child development training and more training hours in a 1-year period than non-inclusive providers. Inclusion status was not a strong predictor of child care quality. Parents of children with disabilities had lower incomes, worked longer hours, were more likely to have their child care services subsidized and were paying lower hourly fees and reported higher stress related to their child care services than parents of children without disabilities. Children with disabilities had been in more childcare arrangements despite starting care later than children without disabilities. Overall, parents rated the quality of their children's care quite high and there were no differences between parents of children with and without disabilities or type of care.
Killoran, 2007[23]	Quantitative Descriptive survey	To explore how preschools in Toronto, Ontario include or exclude children with disabilities.	Telephone interviews were conducted to obtain information from child care directors about wheelchair accessibility, inclusion, disabilities of children in care, services received and accommodations made for children with special needs,	354 directors of licenses preschools	2% of children in 354 Toronto preschools identified with a disability; most commonly Autism Spectrum Disorder or speech and language disorders. Half of centers were providing care to at least 1 child with a disability. The majority of directors stated that they would turn away a child

			undiagnosed children in care, ability to accommodate children with special needs and barriers to inclusion. Data from the interviews was grouped according to inclusive status of the centre and operation status by the Ministry.		because of a disability. Inclusive centers provided more services within their centers (speech, physical and occupational therapy, special education, etc.). The majority of the directors identified barriers to inclusion including physical, training, funding and staff to child ratios.
Campbell, 2005[84]	One group pre-test post-test	To investigate the impact of the Philadelphia Inclusion Network (PIN) training program on child care quality.	Classroom observations were used to measure classroom quality using the Early Childhood Environment Rating Scale[45] and the Infant Toddler Environment Rating Scale.[135] Child-caregiver interactions were observed and rated using the Caregiver Interaction Scale.[142]	228 child care providers and directors who completed the PIN training program	Infant-toddler and preschool child care quality improved after training child care providers and directors on an inclusion training program. There were no differences before and after training on caregiver child interactions.
Aguiar, 2010[144]	Quantitative Descriptive	To investigate the relationship between classroom quality and social acceptance of children with disabilities in inclusive preschools.	Ratings were obtained during interviews with the children to collect data on social acceptance of their peers. Teachers completed the Social Skills Rating System[145] to provide a measure of children's social skills. Developmental testing was conducted on the children using the Abilities Index[124] to determine their severity of disability. The Quality of Inclusive Experiences Measure[146] was used to measure the quality of the inclusion environment. The	64 inclusive preschool classrooms in Portugal containing a total of 1121 children, 64 teachers (the lead teacher from each classrooms) and 64 children with disabilities (1 randomly selected from each	Classroom quality was not associated with children's social acceptance peer ratings. Typically developing children reported higher social acceptance of younger children with disabilities and children with more severe disabilities.

			Assessment Profile for Early Childhood Programs-Research Ed. II[147] was used to measure global quality of the classroom.	classroom).	
Guralnick, 1996[74]	Quantitative Descriptive	To examine the effects of mainstreamed (inclusive) and specialized settings on peer interaction patterns of preschool children with and without disabilities.	Children were observed during free play periods. Parten's index of social participation[148] was used to investigate differences in children's social participation and cognitive play. The Individual Social Behavior Scale[149] was used to examine peer related social behaviors. Peer ratings were based on sorting photos of playgroup peers into 3 boxes indicating how much they like to play with them (a lot, neutral, don't like to play with).	30 preschool aged boys with developmental delays, 42 preschool aged boys who were typically developing children	Children with and without developmental delays engaged in more peer interaction in the inclusive play groups than during play in non inclusive groups. Children with developmental delays were less accepted in the mainstreamed playgroups than typically developing children.
Hundert, 1998[48]	Quantitative Descriptive	To describe differences in the settings of inclusive and segregated preschool programs and to compare social gains children with disabilities make over the preschool year across settings.	Pre and post measures of developmental performance were obtained using the Uniform Performance Assessment System.[150] Parent's ratings and teachers' ratings of children's development were also obtained pre and post using the Vineland Adaptive Behavior Scale[151] and the VABS Classroom Ed.[152] Children's interactive play was measured through direct observations of free play periods.	48 children with severe disabilities in specialized settings, 46 children with severe disabilities in inclusive community settings, 66 children with mild/moderate disabilities in inclusive community settings, 63	Smaller class size, higher adult to child ratio and fewer hours differentiated segregated preschools from inclusive preschools. Children in all groups improved their developmental performance, although the gains of children with severe disabilities in segregated settings were less than children with severe disabilities, mild/moderate disabilities and typically developing children in inclusive settings. No gains were observed in the level of peer interaction for any groups of children with disabilities; only typically

				typically developing children in inclusive community settings. All children were preschool aged (2.5 - 6 years).	developing children increased their percentage of peer interactions over the year.
Reynolds, 1998[49]	Quantitative descriptive	To compare the social-communicative performance of preschool children with developmental delays during free play in mainstream (inclusive) and segregated settings.	Videotaped observations of free play were used to collect data on child-child and child-adult interactions and the Communication and Symbolic Behavior Scales[153] were used to code the interactions.	6 children with moderate to severe developmental delays attending inclusive preschool for half the day and a specialized program for half the day.	Interactions of children with developmental delays during free play periods were similar across mainstream and segregated settings. A very low rate of initiations and responses by these children in both settings was observed compared to the expected rate for typically developing children. In both settings, participants were more successful in obtaining an appropriate response and responding appropriately to partner initiations when an attention-getting device accompanied the initiation.
Erwin, 1993[51]	Quantitative descriptive	To compare the social participation of children with visual impairments during free play in specialized and integrated settings.	Direct observations of children's free play periods were used to collect data on children's social behavior and was coded into categories from Parten's Index of Social Participation.[148]	14 children with visual impairments attending specialized preschools and 14 children with	No differences were observed in social participation among children with visual impairments attending integrated and specialized settings. There was a trend towards children with visual impairments spending more time in an unoccupied behavior in

				visual impairments attending integrated preschools	specialized settings compared to integrated settings. Children with additional disabilities were off task and unoccupied longer and engaged in solitary play less than children without additional disabilities.
Levine, 1997[52]	Quantitative Descriptive	To examine the effects of age and hearing status of play partners on the play of children who are deaf or hearing impaired in integrated settings.	Videotaped observations of children's free play were used to collect data on social and cognitive play patterns. The Vineland Adaptive Behavior Scales, Classroom Ed.[152] was completed by each child's teacher to provide a measure of development in communication and socialization.	46 children who were deaf or hearing impaired aged 3.5 - 6 years	The cognitive play of children who were deaf or hearing impaired changed with age and showed a normal developmental progression from more constructive play among 3 and 4 year olds to more dramatic play among 5 and 6 year olds. Hearing impaired children engaged mostly in constructive play with hearing impaired partners and mostly in dramatic play with hearing partners.
Hauser-Cam, 1993[53]	Quantitative Descriptive	To examine the classroom behavior of children with disabilities in social and mastery domains and to investigate the relationships between child characteristics, classroom characteristics and children's behaviors.	The Bronson Social and Task Skills Profile[154] was used to measure children's behaviors during classroom observations. Interviews were conducted with mothers. The McCarthy Scales of Children's Abilities[155] was used to assess the children's development. The children's teachers completed a questionnaire to obtain additional information about the classroom setting. The classroom observer provided additional information about the classroom setting.	49 children with Down syndrome, 57 children with motor impairment, and 47 children with developmental delays attending preschools	Children with disabilities in more integrated settings engaged in more peer interaction, were less controlled by adults, spent more time engaged in mastery activities but applied fewer strategies in mastering tasks. Children in classrooms with higher adult to child ratios completed more tasks successfully and were less hostile toward their peers, but were more controlled by adults and less likely to engage in social interaction. Children with disabilities in classrooms with more choice of activities engaged in more peer

					interaction.
Malloy, 1996[156]	Qualitative: Ethnography	To describe the peer conflicts of typically developing children and children with disabilities in an integrated preschool.	Videotaped observations of the classroom setting were also completed and were reviewed to the conflicts that occurred. Observers collected field notes of descriptive behaviors of the children and subjective comments and interpretations during observations of the children's interactions.	A preschool class comprised of 9 typically developing children and 8 children with disabilities.	Children with disabilities experienced more conflicts than typically developing children and conflicts were more likely to occur between children with disabilities than between typically developing children. Most conflicts involved a teacher intervention.
Buysse, 1993[55]	Quantitative Descriptive	To examine friendships among preschoolers with disabilities in inclusive community-based child care settings.	Parents completed the Early Childhood Friendship Survey[157] and a family demographic form. The children's teachers also completed the Early Childhood Friendship Survey[157] and a profession and child demographic form. Children's development was assessed using the Battelle Developmental Inventory.[123] The examiners completed the Carolina Record of Individual Behavior[125] to assess the behavioral characteristics of the children. Teachers' ratings were used to assess aspects of the children that may interfere with friendship formation.	58 children with disabilities attending community based inclusive preschools	Most children with disabilities had at least one mutual friend according to their parents and teachers. Children who had mutual friends had higher development scores and more optimal activity levels, reactivity, goal-directedness, frustration, attention span and responsiveness to adults than children who did not.
Buysse, 2002[56]	Quantitative descriptive	To examine the effect that type of setting (inclusive community based	The Playmates and Friends Questionnaire for Teachers[158] was used to measure the number and nature of	333 children enrolled in inclusive early childhood	Typically developing children in specialized classrooms had more friends than children with disabilities. No difference in the

		child care or reverse integration) has on the friendship formation of preschoolers with and without disabilities.	children's relationships with peers. The Teacher Ratings of Children's Social Development scale[159] was used to provide a measure of children's social competence with peers. The ABILITIES Index[124] was used to describe children's functional abilities. The Benefits and Drawbacks of Early Childhood Inclusion Rating Scale[160] was used to measure the teachers general attitudes and beliefs about inclusion.	programs in North Carolina (120 of the children had disabilities and 213 typically developing children). 25 general early childhood educators and 20 early childhood special education educators	number of friends was seen between typically developing children and children with disabilities in community based child care settings. Children with disabilities were more likely to have friendships with typically developing children in community based child care programs than in reverse integration programs.
McCabe, 1999[50]	Single case design	To evaluate two interventions (1. Dramatic play theme boxes and two peer conversational partners, 2. Theme boxes, 2 peer conversation partners and adult prompting) on the rate of conversations and the length (number of turns) of those conversations between preschoolers with and without disabilities.	Videotaped observations of free play periods during baseline and both experimental conditions were used to collect data on children's conversations and teacher's use of prompts.	3 preschool aged children with disabilities and 6 without disabilities. 3 preschool teachers from inclusive classrooms.	Adult prompting was needed in addition to providing a theme box and 2 peer conversation partners in order to increase the rate and length of conversations among children with disabilities with their peers.

Antia, 1994[161]	Non-randomized, concurrent cohort study	To compare the effects of 2 interventions (1. teacher-mediated social skills intervention, 2. an integrated activities intervention) on peer interaction among children with hearing impairments.	Information about the children's hearing impairments were obtained from teacher reports and school records. To measure speech intelligibility, audiotapes of spontaneous conversations were recorded and rated according to the National Technical Institute for the Deaf Speech Scale.[162] Teachers completed the Communication and Social Maturity sub domains of the Classroom Ed. of the Vineland Adaptive Behavior Scale[152] to provide measures of communication skills and social behavior for the children in her class.	49 children with hearing impairments and 56 hearing children who were attending inclusive preschool programs in the US.	There was no difference in social skill development between children who received an integrated activities intervention and children who received a teacher mediated social skills intervention. An integrative activities approach resulted in greater positive peer interaction between children with hearing impairments and their hearing peers.
Ivory, 1999[163]	Single case design	To examine if toy type (social vs. isolate) would influence the level of social play among preschoolers with disabilities in an inclusive setting.	Classroom observations of children's social play during free play periods were conducted. Parten's social participation code[148] was used to classify children's level of social play for each 10 second interval.	8 children with disabilities attending inclusive preschools	Children engaged in more cooperative play when social toys were available and more parallel play when isolate toys were available.
Blasco, 1993[164]	Randomized, controlled design	To investigate if mixed age groups enhance the mastery behavior of young children, including children with disabilities.	Videotaped observations of the children during free play were used to collect data on behavior. The videotaped sessions were reviewed and children's behaviors were coded into play categories.	32 typically developing children and 16 children with disabilities ranging in age from 18 to 60 months.	Groups of mixed-age children in classroom settings promotes higher levels of play mastery for children with disabilities than groups of same-age children. Children without disabilities engaged in similar levels of play mastery in the same-age groups

					and the mixed-age groups.
Roberts, 1994[165]	Randomized controlled design	To compare the communicative interactions of preschool children with and without disabilities in inclusive classrooms consisting of same- or mixed-age groupings.	Videotaped observations of free play sessions were used to collect information on children's communicative interactions with their peers including language complexity and turn-taking. The Battelle Developmental Inventory[166] was used to provide a measure of children's developmental age.	16 children with developmental disabilities and 32 children without disabilities between 1.5 and 4.5 years of age	Children with and without disabilities in mixed-age classes took more turns in conversation with children with disabilities than in same-age classes. All children also received more responses from children with disabilities in mixed-age classes than same-age classes. No differences in the conversations of typically developing children with other typically developing children were observed for the same-age and mixed age classes.
Bailey, 1993[167]	Randomized controlled design	To compare the effects of same- and mixed-age groupings on the social behavior of children attending inclusive preschool programs.	Each child was videotaped during free play sessions to collect information on social behavior. Parten's categories of social play[148] were used to categorize the social play data. The Battelle Developmental Inventory[166] was used to measure children's developmental age.	32 children ranging in age from 1.5 to 5 years.	There was no difference in the overall social play of children in mixed-age groups and same-age groups. However, developmentally younger children displayed more negative interactions in same-age groups while developmentally older children displayed more negative interactions in mixed-age groups. Developmental age was associated with social play such that developmentally younger children spent more time in unoccupied, solitary, on looking, and parallel play, whereas developmentally older children spent more time in cooperative play.
Bailey, 1993[168]	Randomized controlled	To compare the effects of same-	The Battelle Developmental Inventory[166] was used to	59 children between the	Mixed aged groupings of children in classroom settings accelerates

	design	age and mixed-age groupings on the development of children in preschool classrooms.	measure children's development every 6 months for the duration of follow-up.	ages of 21 to 67 months	the developmental trajectory in cognitive, motor and language development for children between 2 and 4 years of age compared to classrooms with same-aged groupings. After 4 years of age, children in same-age groups scored higher than children in mixed-age groups.
McConnell, 1991[59]	Single case design	To evaluate the effects of social skills training and individual and group coaching on the social behavior of preschool children with behavioral disorders with their peers.	A behavioral role play test comprised of scenarios was used to assess the children's social skills. Direct observations of the children during free play activities were used to measure changes in children's social interactions with peers. Social initiations and responses were coded as they occurred.	4 children with behavioral disabilities enrolled in an integrated preschool program.	Social skills training increased the use of target social skills during role play testing in 3 of the 4 children with behavioral disabilities but had very minimal effects on their social behaviors with peers during free play. Children with behavioral disabilities increased their social interactions with typically developing peers during free play when teachers provided coaching to individuals (prompts and praise for target social skills). Group coaching of social skills increased the percentage of responses of typically developing children to initiations from children with behavioral disabilities.
Goldstein, 1992[60]	Single case design	To investigate the effects of teaching sociodemographic scripts on the social interaction of typically developing children and children with	Direct observations of free play periods were used to collect data on children's social interactions and teacher's use of prompts.	3 children with characteristics of autism and 6 typically developing children who were attending an integrated	Social interaction of children with Autism Spectrum disorder increased following social skills training using scripts for role playing.

		Autism Spectrum disorder.		preschool program.	
Neeley, 2001[61]	Pilot test for feasibility of using scripted play as an intervention	To examine the effects of teaching sociodramatic play using scripts on the free play behaviors of children with developmental disabilities in inclusive preschool programs.	Data on children's play behaviors was collected during direct observations of free play periods. Play was coded according to the procedures by Johnson, Christie, & Yawkey (1987)[169] by type of play and level of socialization.	9 children with developmental disabilities attending an integrated preschool program.	Children with disabilities who received script training improved their social play behaviors including more group play and game play and less solitary play and functional play. Their non play behaviors also decreased and their expressive language increased during free play periods following the script training.
Filla, 1999[62]	Single case design	To evaluate the effects of 2 interventions (1. Dramatic play theme boxes and two peer conversational partners, 2. Theme boxes, 2 peer conversation partners and adult prompting) on the rate of conversations and the length (number of turns per conversation) between preschoolers with and without disabilities.	Data on children's verbal behaviors and teachers' use of prompts was collected and coded through videotaped observations.	3 preschool aged children with disabilities and 6 typically developing preschool aged children. 3 inclusive preschool teachers.	The number of conversations and the number of turns per conversation for children with disabilities with their typically developing peers increased following a combination intervention of dramatic play theme boxes and teacher prompting.
Guglielmo, 2001[63]	Randomized controlled design	To compare social behaviors between preschoolers with	Behavioral observation data was collected for the children during free play periods.	58 children with developmental	The children who received social skills training and teacher prompting engaged in more

		developmental delays receiving 1) no intervention, 2) classroom reinforcement of target behaviors and 3) social skills training and classroom reinforcement of target behaviors.	Children were evaluated for tangible reinforcement preferences using the Reinforcement Inventory.[170]	delays attending an integrated preschool in New York State.	sharing than children who received only social skills training and children who received no intervention.
Gena, 2006[64]	Single subject design	To evaluate the effects of social reinforcement and prompting on social interactions of children with autism.	Observations of the children during free play and semi-structured activities were used to collect data on social behaviors.	4 4-year old children with Autism.	Children with autism increased their social initiations with peers and their responses to peers initiations in an inclusive preschool program following social reinforcement and prompting from their teacher.
Myers, 2007[65]	Mixed methods	To provide a comprehensive description of the language and literacy development of children who use augmentative communication aids.	The following qualitative measures were used to collect data: pre-intervention parent questionnaire, field observations, work samples and videotaping of the intervention. Quantitative measures included pre and post-intervention language and literacy assessments and a child survey.	4 children aged between 5 and 9 years who had developmental disabilities and speech impairments and used augmented communication aids.	Children who use augmentative communication aids made gains during the intervention period but only 2 of the children maintained these gains at follow-up.
Goldstein, 1992[66]	Single case design	To examine the effects of a peer mediated intervention of the social interactions of children with and	Video and audio recordings of the children during free play sessions were used to collect data on the children's communicative, social and negative behaviors.	5 children with autism and 10 typically developing children who were enrolled	Interactions between children with autism and their peers during play improved after peers were taught to acknowledge and respond to the behavior of their classmates with autism.

		without autism.		in integrated preschool classrooms.	
Odom, 1991[67]	Single case design	To examine the effects of a peer initiation intervention on the social interactions of children with autism with their peers.	Direct observations of the children were used to collect data on the children's social interactions during structured play activities. The Peer Rating scale[171] was used to measure how much the typically developing children liked to play with their peers.	3 preschool aged children with autism and 4 typically developing children enrolled in the same integrated preschool class	A peer initiation intervention in combination with teacher prompting increased the social interactions between children with autism and their peers. Introduction of a correspondence training/visual feedback condition on its own and in combination with the peer initiation intervention also increased the social interactions of children with Autism with their peers.
Kohler, 1990[68]	Single case design	To examine the effects of individual and group contingencies on the social interactions of children with disabilities and their typically developing peers.	Direct observations of the children were used to collect information on the social interactions of children with autism with their peers.	2 children with autism and 7 typically developing children enrolled in an integrated preschool class	Interactions between children with autism and their peers improved after peers received social interaction training and group or individual reinforcement contingencies.
Sainato, 1992[69]	Single case design	To determine if training typically developing children on facilitative strategies and having them complete a self evaluation increased social interactions between children	Observations and audio recordings of the children were conducted during free play sessions at baseline and after the facilitative strategy training to collect data on children's interactions. Observations continued after the level of interaction between all 3 groups of children had stabilized to measure the self-	3 children with autism and 5 typically developing children who were enrolled in an integrated preschool class	Typically developing children's interactions with children with autism increased after they were taught facilitative strategies and a self-reflective evaluation was implemented. Children with autism improved their social behavior with their peers in response to their peers increasing their use of facilitative strategies.

		with and without autism.	evaluation intervention. The self-evaluation rating scale was used to rate the trained child.		
English, 1997[70]	Single case design	To examine the effects of a peer intervention on the social interaction of preschoolers with moderate developmental disabilities when paired daily with more than one trained peer and to examine the effects of supplemental dyadic intervention (follow up training with the dyad) on the social interactions of peer-target child dyads.	Observations of free play, snack and large group activity periods were conducted to collect data and later code children's social interactions.	10 children with disabilities and 5 typically developing children attending an inclusive preschool program	The use of a peer buddy program in which children were taught to "stay, play and talk" to their classmates increased interactions between children with and without disabilities. The supplemental dyadic training only slightly increased the responsiveness of children with disabilities. Observers consistently reported observing improvement in the social and communicative interactions of children with disabilities with their peers.
Goldstein, 1997[71]	Single case design	To evaluate if a peer intervention for typically developing children increased their use of facilitative strategies "stay, play, talk" in their interactions with classmates with disabilities.	Observations of the children during free play, snack time and structured activities were completed to collect data on their social communicative behaviors. The "Friendship Train", an instrument that was devised to determine the sociometric status of the children with disabilities as rated by their peers involved the typically developing	Cohort 1: 4 preschool age girls with disabilities and 4 preschool age typically developing girls; Cohort 2: 4 preschool age children with disabilities and 4	Training typically developing children on facilitative strategies and encouraging them to use them in inclusive settings improves the social interactions between children with and without disabilities.

			children selecting photographs of children in the class as their preferred passengers on the train.	preschool age typically developing children	
Laushey, 2000[72]	Single case design	To evaluate if a peer-initiated approach taught to all children in an inclusive kindergarten class improves social interaction among children with autism.	Direct observations were conducted to collect data on the social interactions of the children during free play time.	2 5-year old boys with autism enrolled in inclusive kindergarten classes	A peer buddy approach, where students were trained to interact in dyads (1 child with autism and one typically developing child), increased appropriate social interactions among children with autism.
Diamond, 1994[172]	Qualitative descriptive	To investigate the effects that enrollment in an integrated class with a child with a hearing impairment has on children's understanding of communication and hearing loss.	Semi-structured interviews were conducted with each typically developing child in the study at the beginning of the school year and again three months later to gather information on their understanding of hearing, hearing loss and sign language.	24 children without disabilities enrolled in integrated preschool classes: 13 who were enrolled in a class with 2 children with hearing impairments and 11 enrolled in a class with 2 children with cognitive and motor delays	The majority of preschool aged children understand that they hear with their ears and sometimes people have difficulty hearing. Children without disabilities who were in classes with children with hearing impairments were more aware of sign language and hearing impairment than children who were in classes with children with cognitive delays.
Diamond, 1997[173]	Qualitative descriptive	To examine the relationships between children's	Two semi-structured interviews using dolls as visual aids of disabilities were conducted	31 preschool children enrolled in	Children in inclusive classrooms have greater knowledge of the implications of disabilities and

		understanding of disabilities and their social acceptance of children with and without disabilities.	with each child to collect data on their ideas about physical and sensory disabilities.	regular programs and 29 preschool children enrolled in inclusive programs	ratings of acceptance of children with and without disabilities were higher than children in non-inclusive classrooms.
Okagaki, 1998[174]	Mixed methods	To examine relationships between parents' socialization goals for their children, children's ideas, and children's interactions with classmates with a disability.	Study 1: Children were interviewed using small dolls and an adaptation of the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children[175] to collect data on their ideas about the capabilities and social acceptance of children with disabilities. Hypothetical situations based on an adaptation of the Social Problem-Solving Test – Revised[176] were described to children to elicit responses reflecting their willingness to play with children with and without disabilities. Questionnaires were administered to parents to measure their beliefs about socialization. Parents were asked about the age they would teach their child about a list of 6 prosocial behaviors. Observations of the children were conducted to collect data on the social interactions	Study 1: 36 children without disabilities attending an inclusive early childhood program; Study 2: 58 children without disabilities attending two different (community and university based) inclusive early childhood programs	Study 1: Children in inclusive programs were aware of physical disabilities and were equally as accepting of and willing to play with children with disabilities as children without disabilities. Children's willingness to play with a child with a disability, parents' beliefs about modeling interactions with children with disabilities and parents' having age appropriate expectations for prosocial behaviors increased children's interactions with classmates with disabilities. Study 2: The program setting (community or university based) had no impact on children's contacts with classmates with disabilities.

			between children with and without disabilities. Study 2: Children were interviewed using small dolls and an adaptation of the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children[175] to collect data on their ideas about the capabilities and social acceptance of children with disabilities. Hypothetical situations based on an adaptation of the Social Problem-Solving Test – Revised[176] were described to children to elicit responses reflecting their willingness to play with children with and without disabilities. Observations of the children were conducted to collect data on the social interactions between children with and without disabilities.		
Diamond, 2000[177]	Mixed methods	To examine the ways in which children's ideas about helping others (primarily people with disabilities) are associated with their participating in an inclusive	Interviews consisting of 8 vignettes adapted from Rubin's Social Problem Solving Task – Revised[176] were conducted with children to explore their ideas about strategies for helping other children with and without disabilities. Teachers completed the Prosocial Behavior Questionnaire[178] to	33 children enrolled in inclusive preschool classes and 30 children enrolled in non-inclusive preschool classes	Children who were in inclusive classrooms had higher helping strategy scores and were more likely to speak about disability in their interviews than children in non-inclusive classrooms. Teachers rated children in inclusive classrooms as more prosocial than children in classes with typically developing children

		preschool class.	provide a measure of the prosocial behaviors of their student who was in the study.		only.
Diamond, 2001[179]	Mixed methods	To examine relationships between children's ideas about helping others, their understanding of emotions, their acceptance of individuals with disabilities and their social contact with classmates with disabilities.	Interviews consisting of questions about typically developing children and children with disabilities and with the aid of dolls or drawings to illustrate the questions were conducted with the children twice over a 2 week span. As part of the interviews, children rated their social acceptance of children with disabilities, completed the Helping Strategies Interview which was adapted from Rubin's Social Problem Solving Task-Revised[176] and provided information on knowledge of their emotional situation. Observations of free play time in the classroom setting were conducted to collect data on children's social contacts with their classmates.	45 3-5 year old children enrolled in 4 preschool classes in an inclusive program.	Children who interacted with classmates with disabilities scored higher on measures of social acceptance of individuals with disabilities and emotional understanding than children who only interacted with typically developing classmates.
Favazza, 1997[180]	Cohort study with concurrent control group	To examine the effects of an intervention comprised of indirect and direct experiences with children with disabilities and a home reading component on the	Children completed the Acceptance Scale for Kindergartners[181] which measures acceptance and no acceptance of people with disabilities at baseline and again after the intervention. The Inventory of Disability Representation (developed by the authors) was completed by	46 kindergarten children without disabilities	Children assigned to a program designed to increase acceptance of people with disabilities had increased levels of acceptance compared to children with incidental or no contact with children with disabilities.

		attitudes of typically developing children towards children with disabilities.	teachers to describe the child's exposure to people with disabilities in the school environment. Teachers also completed the Opinions Relative to Mainstreaming[182] to measure their opinions about the inclusion of children with disabilities in kindergarten classes. Parents completed a History of Contact Questionnaire to gather information on the child's previous contact with people with disabilities.		
Eiserman, 1995[38]	Quantitative descriptive survey	To explore preschool providers beliefs, perceived abilities, needs and behaviors about inclusion of children with disabilities in community preschool programs.	The survey included the Attitudes Toward Mainstreaming Scale - Revised[183] and an ATMS supplement scale (developed for this study) of additional attitude items to measure the providers beliefs about inclusion. Also included were a Serve-Ability Scale measured providers perceived ability to care for children with diverse needs within their preschool setting, a demographic survey and an optional Sign-Up Survey for providers to indicate interest in planning activities.	135 preschool teachers and 35 preschool directors from private community based preschool programs and 50 teachers and administrative staff from public preschool programs.	In general, the preschool providers had limited experience caring for children with special needs. Providers' attitudes toward inclusion varied by type of disability which impacted their beliefs about the care options that best meet the needs of children with different disabilities. Teachers were most concerned about including children with multiple disabilities or autism. Providers perceived themselves to be able to provide care for children with mild or moderate special needs but were less confident in their abilities to provide care to children with autism and multiple disabilities.
Hadadian, 2001[85]	Quantitative descriptive	To examine child care providers	A questionnaire was developed to collect	202 child care centre	The majority of providers were supportive of the concept of

	survey	perceptions of their training needs and attitudes towards the inclusions of children with special needs in community child care programs.	demographic, opinions about inclusion, training needs and content to support inclusion, state licensing and certification competencies, and preferred training mode.	providers	inclusion, however most of the providers also indicated that inclusion of children with disabilities is disruptive to the classroom routines and is burdensome on their time. The majority felt that inclusion was beneficial for children with and without special needs. Provider needs to support inclusion included assistance with curriculum adaptation and integration of children with special needs during daily routines and consultation and collaboration with early interventionists.
Gemell-Crosby, 1994[28]	Quantitative descriptive survey	To identify factors that are associated with preschool teachers' attitudes and perceived competency in providing care to children with special needs in inclusive settings.	The Regular Education Initiative Survey[184] was adapted for this study to more accurately capture the job requirements and expectations of preschool teachers. The questionnaire included questions to collection data on demographics, attitudes about inclusion, perceptions of the adequacy of the training and support provided, competency providing care to children with special needs, satisfaction with training and support services, the types of support needed and 2 open ended questions to capture their comments about inclusion, education, training inclusion, education, training and support services.	71 preschool providers working in private settings	Positive attitudes toward inclusion was associated with feelings of competence teaching children with disabilities, feeling supported by related service providers and satisfaction with training.

Dinnebeil, 1998[21]	Quantitative descriptive survey	To identify characteristics of early childhood child care providers associated with an interest or willingness to care for children with special needs.	A questionnaire including close-ended and open-ended questions was developed for the study. Questions were included to gather information on providers’ interest in caring for children with special needs, their training needs and preferences, and their demographics.	238 child care providers working in centre-based settings and 162 child care providers from home-based settings	Most providers indicated experience, interest and confidence in caring for children with special needs. Perceptions of confidence were associated with experience caring for children with special needs. Center-based providers were almost twice as likely as home-based providers to express confidence in caring for children with special needs. The most common barriers to providing inclusive childcare were lack of knowledge (71%) and lack of confidence (29%).
Stoiber, 1998[87]	Quantitative descriptive survey	To explore factors associated with parents’ and early childhood providers’ beliefs about inclusion.	My Thinking About Inclusion (MTAI) scale (extended version of a scale to measure beliefs about inclusion developed by the authors). Parents completed the brief version and providers completed the long version which both included demographic questions and questions about their beliefs about inclusion.	415 parents of young children and 128 early childhood providers	Parents of children with special needs held more positive beliefs about inclusion than parents of children without special needs. Characteristics of parents that were associated with more positive beliefs about inclusions were higher socioeconomic status, being married, having more education and having 2 or less children. Teachers and early childhood educators held more positive beliefs towards inclusion than paraprofessionals. Those with more education and experience held more positive beliefs about inclusion. Overall, providers had more positive beliefs about inclusion than parents.
Peck,	Mixed	To explore parent	Phase 1: Semi-structured	Phase 1: 5	Parents indicated that their

1992[15]	methods	and teacher perceptions of outcomes for typically developing children in inclusive early childhood programs.	interviews were conducted with teachers and parents to explore their ideas about the benefits and negative effects of integrated programs. Data from the interviews were reviewed, coded and categorized and used to develop a survey for Phase 2 of the study. Phase 2: Participants completed a survey to measure their perceptions of the outcomes of integrated programs on typically developing children.	teachers and 5 parents of typically developing children enrolled in inclusive programs. Phase 2: 125 parents of preschool or kindergarten age children attending inclusive classrooms and 95 teachers from inclusive classrooms	children's experience in an integrated setting was positive. There was high agreement among parents that their children showed more acceptance of individual differences, more awareness of other children's needs, less discomfort with people with disabilities, less prejudice and fewer stereotypes and more responsiveness and helpfulness towards other children after being in an integrated program. Teacher respondents agreed that children without disabilities benefitted from inclusion for the following reasons: 1) they were more comfortable with individuals with disabilities, 2) they were more aware of others' needs, and 3) demonstrated increased acceptance of individual differences.
Marchant, 1995[86]	Qualitative descriptive	To investigate integrated preschool teachers' views of difficulties experiences in integrated preschool settings.	Semi-structured interviews were conducted with all participants to gather information about their perceptions of integration in preschools. The narrative data were analyzed to identify themes that described teachers' experiences and concerns with integrated settings.	10 preschool teachers teaching in inclusive classrooms	The teachers interviewed were committed to integration at the early childhood level and felt integrated programs had positive effects on preschoolers and their families. Common concerns among the teachers were ensuring positive social interactions between children with and without disabilities and meeting the individual needs of all children. Issues that caused the

					most stress were time constraints and administrative issues.
Buysse, 1996[185]	Quantitative descriptive	To examine the attitudes of early childhood teachers toward inclusion of children with disabilities in early childhood education settings.	The ABILITIES Index[124] was completed by a teacher and early childhood special educator to measure the developmental abilities of a child with disabilities from the teacher's class. Structured interviews using the ABILITIES Index to measure teacher's comfort caring for children with increasing levels of disability in nine domains. An adapted version of the Benefits and Drawbacks of Early Childhood Inclusion rating scale[160] was completed by the teachers to assess their attitudes toward the benefits and drawbacks of inclusion.	52 early childhood teachers and 52 children with disabilities from community childcare programs and 18 early childhood special educators who worked as consultants in these settings.	Providers were comfortable working with children with special needs but were less comfortable with children with severe special needs. A perceived negative aspect of inclusion was inadequate teacher training and positive aspects of inclusion were promoting learning and independence and preparation for the real world among children with disabilities, and, for children without disabilities, an appreciation of individual differences.
Lieber, 1998[186]	Qualitative	To describe early childhood educators beliefs about inclusion and how those beliefs are reflected in classroom instruction.	Classrooms were observed to collect data on classroom participants, the physical environment, routines, activities, and interactions between children. Data on teachers' beliefs were collected through the observations of the classroom, interviews and review of program documents.	23 preschool teachers from inclusive programs	Themes that emerged include: 1) teachers thought that inclusion meant belonging to a group, 2) some teachers thought of their classroom as a group of many individuals ("pluralism:) while some thought about the group norm of their classroom ("melting pot"), 3) inclusion provides an opportunity to learn about and accept differences, 4) inclusion provides an opportunity for children without disabilities to learn empathy, tolerance and

					compassion for others, 5) inclusion provides an opportunity for children without disabilities to help and teach others, 6) inclusion provides an opportunity for children with disabilities to learn from their peers.
Wesley, 1997[22]	Qualitative descriptive	To explore parent and professional experiences and perspectives regarding inclusion and early intervention.	Three focus groups were conducted with parents and three focus groups were conducted with professionals. An interview protocol was followed to conduct the sessions which consisted of a guided discussion using open-ended questions and probes to explore the parents' and professionals' views and experiences with inclusion and early intervention services.	13 parents of young (0-5) children with disabilities and 32 professionals including service providers and administrators from a variety of child care, early intervention, health and school services.	The providers identified that the key barriers to inclusive care were lack of high quality programs, issues with funding, transportation issues, lack of training, teacher attitudes and large class sizes. Barriers identified by parents included large class size, teacher-child ratios and inadequate staff qualifications.
Rafferty, 2005[16]	Quantitative descriptive survey	To compare parents and providers perceptions of the benefits and risks of a reverse inclusion preschool program.	Parents and providers completed surveys which included the Impact of Inclusion on Children with Disabilities Scale and the Impact of Inclusion on Typically Developing Children Scale, both developed for this study and adapted from the Benefits and Drawbacks of Mainstreaming Scale[160] and the Parental Attitudes Toward	237 parents of preschool aged children with and without disabilities attending a community-based reverse inclusion preschool program and	Providers and parents agreed that inclusion was beneficial for children with and without disabilities. Providers had higher global attitudes toward inclusion than both groups of parents. Providers and parents were most supportive of inclusion for children with speech, orthopedic or hearing impairments and least supportive of inclusion for children with emotional problems, autism

			Mainstreaming Scale.[187] The survey also included items from the Attitudes about Integration Opportunities for Children with Special Needs[14] to measure participants' attitudes toward inclusion.	118 providers from the same program	or cognitive impairments.
Mitchell, 2007[188]	Quantitative descriptive	To examine how the beliefs of teachers working in inclusive classrooms affect their attitudes toward working with children with disabilities.	The Teacher Belief Scale[189] and the Instructional Activities Scale[141] were used to measure teachers' beliefs about appropriate practices. The Inservice Teacher Self-Report Survey[190] was used to measure teachers' attitudes toward, knowledge of and comfort levels regarding working with children with disabilities and their perceived level of preparation for the inclusive classroom using open ended questions.	35 preschool teachers teaching in inclusive classrooms	Teachers' beliefs were not associated with their attitudes toward inclusion, their knowledge of inclusion and their comfort levels caring for children with disabilities.
Huang, 2009[77]	Quasi-experimental study	To examine the effects of information about children's disabilities on preschool teachers responses about inclusion of children with disabilities.	The Teachers' Comfort and Concerns Questionnaire, developed for the study, was used to measure teachers' responses about including children with disabilities in their classes. Vignettes about hypothesized children with disabilities were included as part of the questionnaire. Two questionnaire formats were randomly distributed to participants where one version had diagnostic labels attached	155 preschool teachers	Teachers indicated more comfort caring for children with disabilities when they had more education and experience. Teachers responded more positively to including a child with a motor skills disability (e.g. cerebral palsy) than a child with learning, language and/or behavioral problems (e.g. ADHD, Down syndrome or severe intellectual disabilities). Teachers indicated the greatest need for adaptation and support when including a

			to each child's description in the vignettes and the other version did not include diagnostic labels. The questionnaire also included demographic, education, and program questions.		child with severe intellectual disabilities compared to a child with ADHD, cerebral palsy or limited language and learning abilities. Teachers responded more positively to children without diagnoses.

Appendix H

Table 25. Comparison of community size among child care centres in the survey sample and the population

Community size	Population N (%)	Study Sample N (%)	p-value
Urban	1084 (74.0)	249 (78.3)	0.102
Small urban	150 (10.3)	34 (10.7)	
Rural	230 (15.71)	35 (11.0)	