

**IMPACTS OF ABORIGINAL EARLY CHILDHOOD DEVELOPMENT
PROGRAMS- A CASE FOR EVALUATION OF THE BRITISH COLUMBIA
FIRST NATIONS HEAD START ON-RESERVE PROGRAMS (BCFNHS)**

by

DAMILOLA OJO

Capstone Project Submitted in Partial Fulfillment of the
Requirements for the Degree of
Master of Public Health

in the
Public Health Program
Faculty of Health Sciences

© Damilola Ojo

SIMON FRASER UNIVERSITY

Spring 2017

Copyright in this work rests with the author. Please ensure that any reproduction
or re-use is done in accordance with the relevant national copyright legislation.

Approval

Name: Damilola Ojo

Degree: Master of Public Health (Population Health)

Title: Impacts of Aboriginal Early Childhood Development Programs- A Case for Evaluation of The British Columbia First Nations Head Start on-Reserve Program (BCFNHS)

Examining Committee:

Nienke Van Houten
Senior Supervisor
Senior Lecturer, Faculty of Health Sciences

Malcolm King
Second Reader
Professor, Faculty of Health Sciences

Date Defended/Approved: April 11, 2017

Abstract

The BC First Nations Head Start (BCFNHS) on-Reserve program is an Aboriginal early childhood development program that was initiated to enhance child development, school readiness and overall family health and wellness for First Nations preschool children (birth to six years old) on reserve. Despite being in existence for almost 20 years, no program evaluation has conducted to show its effectiveness and impacts on Aboriginal children, their families and communities. Using a comparative analysis, this paper explores dimensions of evaluation used in the process of program evaluation such as evaluation approaches, evaluation design, outcome measures and data collection methodology, that would be appropriate and suitable for the evaluation of BCFNHS on-Reserve program. The findings from this analysis revealed important factors to consider in the process of selecting approaches or methods for the evaluation framework of BCFNHS. Findings also highlight the importance of including Aboriginal people from the communities in the evaluation process. It is essential that tools and methods used in the evaluation framework are consistent with culturally-based knowledge and practice and the Indigenous world views are incorporated in the evaluation process.

Acknowledgements

Firstly, I would like to extend gratitude to my supervisor Dr. Nienke Van Houten, who not only supported me through the process of developing this project but also supported and encouraged me through the course of my graduate studies. I sincerely appreciate your time and efforts and always being there whenever I needed your help and guidance. Secondly, I would also like to appreciate my second reader Dr. Malcolm King for your time, insights and guidance in the course of this project.

Lastly, I am also grateful to my family and friends for their constant support and encouragement, especially to my partner Odepeju, for always helping, supporting and encouraging me throughout my master's program. I am truly grateful.

Table of Contents

| | |
|--|-----------|
| Approval..... | ii |
| Abstract..... | iii |
| Acknowledgements | iv |
| Table of Contents | v |
| List of Tables | vii |
| List of Figures | viii |
| Introduction | 1 |
| Background Information..... | 5 |
| Aboriginal Head Start on Reserve (AHSOR) Program..... | 5 |
| Importance of Early Childhood Development (ECD)..... | 8 |
| Demographics of Aboriginal People/Children in Canada | 11 |
| Aboriginal Ways- Linking Past with Present | 13 |
| Program Background (BC First Nations Head Start On-Reserve Program) | 16 |
| Purpose..... | 19 |
| Program Evaluation..... | 21 |
| 1.1. FOCUSING STAGE | 22 |
| 1.1.1. Evaluation Approach and Stakeholders Identification | 22 |
| 1.1.2. Evaluation Purpose and Types of Evaluation | 23 |
| 1.1.3. Evaluation Questions and Logic Model | 24 |
| 1.1.4. Evaluation Research Design | 25 |
| 1.2. PLANNING STAGE | 26 |
| 1.2.1. Data Collection Methods..... | 26 |
| 1.2.2. Data Analysis and Interpretation | 27 |
| Methodology- Identification of Aboriginal ECD Programs | 28 |
| Description of Programs | 29 |
| Findings and Program Evaluation Framework Analysis | 32 |
| 1.3. FOCUSING STAGE | 33 |
| 1.3.1. Evaluation Approach and Stakeholders Identification | 33 |
| 1.3.2. Evaluation Purpose and Types of Evaluation | 34 |
| 1.3.3. Evaluation Questions and Logic Model..... | 35 |
| 1.3.4. Evaluation Research Design | 35 |
| 1.4. PLANNING STAGE | 38 |
| 1.4.1. Data Collection Methods..... | 38 |

| | |
|---|-----------|
| 1.4.2. Data Analysis | 39 |
| 1.5. Program Evaluation Findings..... | 40 |
| Discussion | 43 |
| Recommendations | 47 |
| Jurisdictional Responsibility..... | 47 |
| Evaluation Framework..... | 48 |
| Conclusion..... | 50 |
| References | 51 |
| Appendix I. Evaluation Questions | 58 |
| Appendix II. Logic Models | 58 |
| i. Logic Model: Little Red Spirit Head Start Program Evaluation (DeRiviere, 2016) 58 | |
| ii. Logic Model: NWTAHS (Northwest Territories Aboriginal Head Start Program, 2008)..... | 62 |

List of Tables

| | |
|--|----|
| Table 1. Federally Funded Aboriginal Early Education and Care Program in Canada (Preston, 2014; Preston, 2008). | 3 |
| Table 2. Description of Identified Programs | 31 |
| Table 3. Summary of the Comparative Analysis of the Four Identified Aboriginal ECD Programs | 37 |

List of Figures

Figure 1. An Illustration of Program Evaluation Design Framework (Mertens, 2014)22

Introduction

In the 1960s through 1970s and to the early 1980s, Aboriginal early childhood development programs in Canada were virtually non-existent, a period where significant attention was given to the importance of good quality care and education in early years of non-Aboriginal children's life (Ball, 2005; Greenwood, 2006). Aboriginal early childhood programs in existence during this period were short-lived because they were either sporadic or poorly funded (Greenwood, 2006). No significant attention was given to Aboriginal children and their learning programs until the mid-1990s.

In the late 1980s, Aboriginal people started to advocate a need for the government to recognize and attend to Aboriginal children's care and education (Greenwood, 2006). However, it was not until the mid-1990s that the government began to realize why it was crucial to start to focus on Aboriginal early childhood care and education (Greenwood, 2006; Greenwood, de Leeuw, & Fraser, 2007). With the compelling high rates of unemployment, poverty and low socio-economic status of Aboriginal people owing to their low level of educational attainment, the need to improve Aboriginal education became undeniable (Greenwood, 2006; Preston, 2008).

The commitment to address the need for Aboriginal early childhood program by federal government began in 1995 with the establishment of two initiatives, namely, the First Nations and Inuit child care and the Urban and Northern Aboriginal Head Start program for First Nations people living off-reserve (Ball, 2005; Greenwood et al., 2007; Nguyen, 2011). This was to help enhance child development and school readiness for Aboriginal children living in urban centers and large northern communities (Greenwood, 2006; Nguyen, 2011; Public Health Agency of Canada, 2012a).

Over the past two decades, with continuous and persistent advocacy work by the Aboriginal community, Aboriginal early childhood programs have and continue to receive significant attention from the federal/provincial governments (Greenwood, 2006; Greenwood et al., 2007). Today, with the Aboriginal population growing at a fast rate and having a larger

than average child population, the need for good quality Aboriginal- specific childhood development program are even more imperative and critical (Preston, Cottrell, Pelletier, & Pearce, 2012). Consequently, with the growing recognition of these factors and needs of Aboriginal children, variety of Aboriginal early childhood care and education programs and services have been initiated, which are mostly funded and delivered through a collaborative effort among the federal and provincial/territorial governments (Ball, 2005; Greenwood, 2006; Preston, 2008). For most of these programs, the federal government is responsible for the provision of funds, while the provincial/territorial government roles are to ensure the health and social services are provided, including regulating childcare/daycare licensure (Ball, 2005).

As summarized on **Table 1**, the federal government is responsible for the funding of variety of Aboriginal early childhood programs nationwide (See Table 1). These programs are funded and managed under the jurisdiction of four main ministries; Health Canada, the Public Health Agency of Canada, Human Resources and Skills Development, and Indian and Northern Affairs Canada (J. P. Preston, 2008). For example, the two Aboriginal Head Start programs are funded and managed separately, while the Public Health Agency of Canada is responsible for the provision of funds and services for Aboriginal Head Start in Urban and Northern Communities (AHSUNC), Health Canada, on the other hand, is responsible for Aboriginal Head Start on Reserve (AHSOR) (Public Health Agency of Canada, 2012a).

Table 1. Federally Funded Aboriginal Early Education and Care Program in Canada (Preston, 2014; Preston, 2008).

| Program | Federal Jurisdiction | Program Goals | Curriculum |
|--|---|---|--|
| Aboriginal Head Start in Urban and Northern Communities (ASHUNC) (1995) | Public Health Agency of Canada, the Health Promotion and Programs Branch | To enhance child development and school readiness by meeting the child’s spiritual, emotional, intellectual, and physical needs, while encouraging locally controlled programs. | Six themes: (a) culture and language, (b) education and school readiness, (c) health promotion, (d) nutrition, (e) social support, and (f) parental involvement. |
| Aboriginal Head Start on Reserves (ASHOR) (1998) | Health Canada, the Medical Services branch | To enhance child development and school readiness by meeting the child’s spiritual, emotional, intellectual, and physical needs, while encouraging locally controlled programs. | Six themes: (a) culture and language, (b) education and school readiness, (c) health promotion, (d) nutrition, (e) social support, and (f) parental involvement. |
| First Nations & Inuit Child Care Initiative (FNICC) (1995) | Human Resource Development and Skills Development Canada and Department of Indian and Northern Affairs | To assist First Nations and Inuit people in obtaining quality, affordable child/daycare similar to services existing within the non-Aboriginal population. | Promotes the provision of a healthy, safe, and caring environment when the child’s primary caregiver is away. |
| First Nations Child & Family Services Program (FNCFS) (1989) | Department of Indian and Northern Affairs, the Social Policy & Programs branch (in cooperation with provincial/territorial governments) | To assist First Nations in acquiring culturally relevant child and family services similar to services existing within the non-Aboriginal population. | Promotes the development and expansion of child and family services, which are designed, managed, and controlled by First Nations. |
| Brighter Futures (BF) (1992) | Health Canada | To assist First Nations and Inuit communities in establishing culturally | Five themes: (a) mental health, (b) early child development, (c) promo- |

| | | | |
|---|---|--|---|
| | | relevant programs specific to child development, parenting skills, and overall community wellbeing. | tion of healthy babies, (d) parenting skills, and (e) injury prevention. |
| First Nations' National Child Benefit Reinvestment Initiative (FNCBR) (1998) | Canada Revenue Agency and Indian and Northern Affairs Canada | To provide an opportunity for First Nations to develop projects addressing child poverty. | Five themes: (a) child care, (b) child nutrition, (c) parental support for parents, (d) home-to-work transition, and (e) cultural enrichment. |
| Canada Prenatal Nutrition Program, First Nations and Inuit Component (CPNP) (1994) | Health Canada, the Medical Service branch | To provide prenatal nutrition, health information, and counselling to First Nations and Inuit pregnant women, mothers of infants, and infants up to one year of age. | Four themes: (a) nutrition, (b) parenting skills, (c) supportive groups for pregnant women and mothers, and (d) provision of nutritious food |
| Fetal Alcohol Syndrome/Fetal Alcohol Effects (FAS) (1999) | Health Canada, National Advisory Committee on FAS/FAE, National First Nations and Inuit Steering Committee, and other federal departments | To reduce the prevalence of Fetal Alcohol Syndrome and the unwarranted effects it has on children, families, and communities. | Four themes: (a) public awareness and education, (b) early identification and diagnosis, (c) surveillance, and (d) project funding |
| Maternal Child Health Program (MCH) (2006) | Health Canada | To support First Nations pregnant women, mothers, and their families, while providing linkage to other services. | Foci: (a) preconception, (b) pregnancy; and (c) infancy and early childhood wellness |

Background Information

Aboriginal Head Start on Reserve (AHSOR) Program

In 1998, the Aboriginal Head Start on Reserve (AHSOR) was implemented three years following the establishment of the original Aboriginal Head Start (AHS), Aboriginal Head Start in Urban and Northern Communities (AHSUNC) (Health Canada, 2005; Terbasket & Greenwood, 2007). In the same year, the British Columbia First Nations Head Start (BCFNHS) was launched and implemented as a regional Head Start for BC First Nations on reserve communities (Terbasket & Greenwood, 2007). AHSOR, as an AHS extension program, was developed to provide accessible Head Start program for First Nations children living on reserve communities through early child development strategies that are designed and controlled locally by communities (Greenwood, 2006; Health Canada, 2005).

The primary goal of AHSOR was to “demonstrate that locally controlled and designed early intervention strategies can provide First Nations preschool children with a positive sense of themselves, a desire for learning and opportunities to develop fully and successfully” (Greenwood et al., 2007). This decentralized approach to early intervention strategies enables each community to design its own program and curriculum in a manner that meets local needs and draws on local assets to support that community’s vision for children’s early learning (Ball, 2014). Local control of AHS programs helps the community to deliver a more coordinated program by integrating other programs and services, such as speech-language pathology, dental hygiene, or community nursing, as needs and resources allow (Ball, 2014). Thus, AHSOR program is one of the Aboriginal childhood programs that serves as a hub for intersectoral service delivery to provide better support systems for families living in remote and rural communities (Ball, 2005).

AHSOR program was modeled after the AHSUNC program, which is centered on a six core program components aimed at children 0-6 years old. The six components include; health promotion, culture and language, education, nutrition, social support, and parental/family involvement (Health Canada, 2005). This was to help prepare First Nations children for school years in a caring and nurturing environment based on a comprehensive and culturally

appropriate holistic model, encompassing the emotional, spiritual, physical, and mental health needs of children for lifelong learning (Health Canada, 2003, 2005).

ASHOR program has evolved and improved enormously over the years. It has undergone several reformations and transformations to ensure it is designed, planned and delivered appropriately with services being tailored to suit the local needs of each distinct community (Ball, 2014). Nevertheless, programs may differ in quality, quantity, and accessibility across provinces/territories due to variability in needs, geographical locations, and funding (J. P. Preston, 2008). Each distinct community program may receive funds from different jurisdictions depending on the requirements for eligibility, the proposal of funds and reporting, thus, funds are not equally distributed to communities (Jamieson, 2007; Preston, 2008). Also, programs may differ from one community to the other due to resource and infrastructure availability in each community; as a result, programs are designed and implemented based on resources available for use in each distinct community (Greenwood et al., 2007).

Several millions of dollars are being invested annually in the AHSOR program to provide funding for a focused approach to Aboriginal early childhood development within six program components that are integrated, viable and sustainable (Health Canada, 2005). The Government of Canada provides about \$59 million annually to support over 9,000 children (zero to six years) in over 300 Aboriginal Head Start programs in First Nations communities on reserve (Health Canada, 2005). As a point of comparison with AHSUNC, ASHOR receives a greater share of the federal funds. While the AHSUNC receives 40 per cent of the overall federal Aboriginal Head Start funding, 60 per cent of the funds is invested in ASHOR (Public Health Agency of Canada, 2012a). However, for ASHOR program there has not been any form of accountability in form of evaluation to show the effective utilization of invested funds. This makes it rather difficult to assess the economical efficiencies of the program and future improvements in funding allocations to programs and communities are also difficult.

In terms of formal evaluation, only limited research evidence exists to show the impacts and effectiveness of AHS in general. Unlike the ASHOR, AHSUNC program has been evaluated nationwide. Findings from the National Impact evaluation shows that the AHSUNC program has had a positive effect on school readiness, specifically in improving children's language, social,

motor and academic skills, cultural literacy, and exposure to Aboriginal languages (Public Health Agency of Canada, 2012b). Positive effects were also reported on health promoting behaviors such as children's access to daily physical activity, health, and dental care. Moreover, the AHSUNC evaluation was able to identify areas that needed more attention, as well as assess the economical efficiencies of funds, to create opportunities for further improvement in program delivery (Public Health Agency of Canada, 2012b). Whereas, no such form of formal evaluation or evidence exists for AHSOR program.

According to the 2000-2001 annual ASHOR report, a national evaluation process was developed for AHSOR, which included a National Process Survey and an impact baseline to establish measurable criteria and a snapshot of the program (Health Canada, 2003). Evaluation requirements were developed for regions and communities to participate in this process, however, other than meeting these requirements they have not been required to participate in a community-based, regional or national evaluation (Terbasket & Greenwood, 2007). Therefore, no formal evaluation exists for ASHOR programs other than the programs meeting these requirements. Since no formal evidence exist for ASHOR it is rather difficult to identify or assess what areas of the program have been successful, program's effectiveness in meeting expected outcomes (short, intermediate and long term outcomes), or challenges of the program.

Although several reports have articulated some promising features of the AHSOR program and its high potential of being very beneficial and successful, there is still a need for evidence-based research evaluation to support these claims (Ball, 2008, 2014; J. P. Preston, 2008; Public Health Agency of Canada, 2012a). Examples of such promising features include, helping the revitalization of Indigenous language and culture, increasing self-esteem and independence of Aboriginal children, increasing knowledge of health and nutrition which helps promote children's health and development, helping in filling the gaps that exist in provision of health services and social support to families and reducing high rates of removal of Aboriginal children from their families and communities to government care (Ball, 2008, 2014; J. P. Preston, 2008; Public Health Agency of Canada, 2012a).

Posavac (2015) defined program evaluation as “a methodology to learn the depth and extent of need for a human service and whether the service is likely to be used, whether the service is sufficiently intensive to meet the unmet needs identified, and the degree to which the service is offered as planned and actually does help people in need at a reasonable cost without unacceptable side effects” (Posavac, 2015). Program evaluation provides intricate details and evidence about how effective a program is and what impacts it has on its target population. This will not only serve as a form of the accountability of funds for the government expenses but will also help highlight, from an evidence based standpoint, the successes of ASHOR program in meeting its expected outcomes. For the communities, a program evaluation will help provide assurance that the children, families and communities are gaining maximally from the ASHOR program. Also, since fund allocations and eligibility are reports and proposal driven, the use of evidence-based reports will be very beneficial in securing better funds in the future. The overall goal of evaluation would be:

1. To assess success, relevance, and performance of program (effectiveness and economical efficiencies)
2. To identify opportunities for program and service improvement
3. To inform future government program and policy directions including future funds allocation and
4. To contribute to the existing evidence-based practices for aboriginal early childhood programs and to provide evidence for the accountability of funds invested.

Importance of Early Childhood Development (ECD)

Early years of a child from the time of conception to school age is a period of positive human development (brain and resilience development), however, it is also a period of high vulnerability to harm (Anderson et al., 2003; Phillips, Shonkoff, & others, 2000). The development process in the early stage of life progress more quickly than any later stage in life, and hence, it is a highly susceptible phase and negative experiences can have lasting impacts.

This stage is also critical because it establishes the foundation for the subsequent stages of life, which can either, be sturdy or fragile (Phillips et al., 2000).

During the early few years, children develop and build linguistic, cognitive, social and emotional skills that enables them to cope with daily life challenges and adversities, build positive human relationships and become self-resilient individuals (Anderson et al., 2003; Masten, Gewirtz, & Sapienza, 2006; Phillips et al., 2000). The acquisition of these skills together establishes a protective system, which is a key determinant of children's school readiness, future academic success, health, well-being, and life course trajectories (Anderson et al., 2003; Masten et al., 2006; Phillips et al., 2000). However, certain social, environmental and biological risk factors limit this developmental process and health outcomes of children who are at disadvantage or at risk (Anderson et al., 2003; Blackman, 2002).

Children with developmental dysfunction (such as premature birth, low birth weight, sequelae of childhood infections and physical disabilities) as a risk factor or children from socially and economically disadvantaged families are more vulnerable in the early years of life when compared with their advantaged peers (Anderson et al., 2003). Hence, early childhood development (ECD) programs are often targeted at disadvantaged and/or at-risk children, with the goal of ensuring they acquire relevant protective skills regardless of any limitations, so they can live up to their full potential and become productive member of the society (Anderson et al., 2003; Barnett, 1995a; Blackman, 2002). The establishment of this protective system requires building healthy relationships in a nurturing and stimulating environment, especially with caregivers, parents, families, and for Aboriginal people, the communities, which ECD programs try to provide (Preston et al., 2012).

Over the past few decades there has been a growing body of evidence of the effectiveness of ECD programs providing disadvantaged children with the desired protective skills and their positive impacts on child and family outcomes (Anderson et al., 2003; Barnett, 1995; Belsky et al., 2007; Burger, 2010). ECD programs have been reported to have positive short- and long-term impacts on child outcomes in the areas of cognitive development, social and emotional development, language and literacy, mental and behavioral development,

school readiness and achievement (Anderson et al., 2003; Blackman, 2002; Kemp et al., 2011; Lee, Brooks-Gunn, Schnur, & Liaw, 1990; McKey & others, 1985; Vogel, Brooks-Gunn, Martin, & Klute, 2013; Wasik, Ramey, Bryant, & Sparling, 1990; Zigler & Valentine, 1979). They have also been shown to positively impact parents and families in the areas of parental competence and knowledge, parent-child interaction, educational attainment, parent employment, and poverty levels (Anderson et al., 2003; Barnett, 1995; Kemp et al., 2011; Love et al., 2005).

These array of evidence placed persistent emphasis on the quality of childcare and education of programs that successfully creates opportunities for learning, adequate nutrition, parent education and involvement, and community support for families to facilitate the establishment of protective system (Barnett, 1995; Currie, 2001; Kemp et al., 2011; Masten et al., 2006; Wasik et al., 1990). Also, research has shown that children who participate in high-quality ECD programs such as the Perry Preschool programs for children disadvantaged by poverty and the Head Start program are more likely to finish high school and to be employed (Barnett, 1995; Schweinhart, 2013; Vogel et al., 2013; Wasik et al., 1990; Weikart, 1989).

Head Start program originated from the United States, where it was targeted at children who were disadvantaged by poverty (Vogel et al., 2013). Head Start is a comprehensive early childhood development program that focuses on 'whole child' development, which includes strengthening of families rather than just academic preparation for school (Deming, 2009; Love et al., 2005). This approach is reflected in Head Start's program objectives, which are to (Anderson et al., 2003);

1. Enhance children's growth and development.
2. Strengthen families as the primary nurturers of their children.
3. Provide children with educational, health, and nutritional services.
4. Link children and families to needed community services.
5. Ensure well-managed programs that involve parents in decision-making.

The American Head Start program was later adapted in Canada as an Aboriginal early childhood program to help the development of Aboriginal children and prepare them for school (Greenwood, 2006; Preston, 2008; Royal Commission on Aboriginal Peoples, 1996). The

American Head Start has undergone extensive evaluation to show its impacts and effectiveness in achieving its outcomes, examples include, improving school readiness and achievement, social and emotional development skills, parents' involvement in children's life and parenting skills (Anderson et al., 2003; Deming, 2007; Love et al., 2005; McKey & others, 1985; Vogel et al., 2013; Wasik et al., 1990). This ensures the Head Start programs yield significant impacts on child and parenting outcomes and the developmental gaps between disadvantaged children and their peers are closing (Love et al., 2005). It also ensures programs are designed and delivered in manners that meet the needs of the community and impacts can serve to justify funds allocated to programs (Love et al., 2005). The Canadian Head Start on the other hand has limited evidence to show its effectiveness and impacts on children and families, even though significant gap exists between Aboriginal children and the non-Aboriginal peers.

Demographics of Aboriginal People/Children in Canada

There are over one million Aboriginal people (also referred to as Indigenous people) living across Canada. According to the 2011 National Health Survey, Aboriginal people represent only 4.3% of the total Canadian population and just 5% of the total population in British Columbia (BC) (Kelly-Scott & Arriagada, 2016; Turner, Crompton, & Langlois, 2011). Also, in Canada Aboriginal people consist of a diverse group living across the country, but three groups are mainly recognized, which are First Nations people, Metis and Inuit (Turner et al., 2011). These groups are distinct with unique histories, languages, beliefs and traditions. Amongst these Aboriginal groups, First Nations persons make up the largest group, representing 60.8% of the total Aboriginal population, including registered and non-registered Indians (Turner et al., 2011).

In comparison, the Aboriginal population is smaller than the general Canadian population, however, they are younger and growing at a more rapid rate than the rest of Canadian population. In 2011, The First Nations peoples average reported age was 26 years, this was 15 years younger than that of the non-Aboriginal people (41 years) (Turner et al., 2011). Moreover, First Nations group has had the highest population growth rate over the

years, with a population increase of 22.9% from 2006 to 2011 compared to 5.2% of the general Canadian population (Turner et al., 2011).

In BC as the rest of Canada, the proportion of children in the Aboriginal population is significantly higher than that of the non-Aboriginal. In 2011, almost half of Aboriginal population (48%) were of 25 years of age and under compared to 27% of the non-Aboriginal population (Kelly-Scott & Arriagada, 2016). Among the Aboriginal Groups, First Nations had the highest proportion of children, making up 46% of all Aboriginal children population (43% of those living on a reserve and 48% of the off-reserve population) (Kelly-Scott & Arriagada, 2016). Aboriginal population being young and having high growth rates were attributed to the higher fertility rates, shorter life expectancy amongst the Aboriginal population in comparison to non-Aboriginal population, and for First Nations people, including the increasing number of persons identifying as First Nations person over time (Gionet, 2009; Turner et al., 2011).

Despite being a sizeable, youthful and fast-growing population, Aboriginal people experience disproportionate higher incidences of negative health outcomes and disproportionate burden of diseases than non-Aboriginal people. Even though there has been reported improvements in health outcomes of Aboriginal people, there is still a significant gap between the health status of Aboriginal people compared to non-Aboriginal people (George, Jin, Brusson, & Lalonde, 2015). Aboriginal communities still experience multiple health disparities such as high rates of morbidity and mortality, chronic and infectious diseases, suicides, unemployment and poverty (Adelson, 2005; Gracey & King, 2009; Statistics Canada, 2015).

Specifically, Aboriginal children are more likely to experience higher incidences of poverty, poorer transition, and integration into schools, and higher prevalence of developmental delays (Cass, 2004; Hare, Anderson, & others, 2010; Schroth, Harrison, & Moffatt, 2009). In BC, First Nations children experience higher incidences of poor nutrition, obesity, chronic illnesses, in addition to being over-represented in foster care (Kelly-Scott & Arriagada, 2016; National Collaborating Centre for Aboriginal Health, 2011). They are also more likely to live with lone-parents and in crowded homes than non-Aboriginal children, repeat a

grade in primary school, leave school without completing (Ball, 2014; Kelly-Scott & Arriagada, 2016).

Therefore, while it is important to ensure the provision of good quality early childhood education and care for all children, it is even more critical for Aboriginal people and their children, having these burden of disparities, with a high proportion of children and being the fastest growing population (Preston et al., 2012). For these reasons, it is crucial for health strategies and programs (such as early childhood development programs) focusing on Aboriginal children to not only be of perceived high quality but high-quality programs that have been investigated through the program evaluation. It is important to demonstrate that programs targeting Aboriginal early care and education are contributing to the overall improvement of the developmental potentials, health status, and well-being of Aboriginal children.

Aboriginal Ways- Linking Past with Present

Prior to contact with the Europeans, Indigenous/Aboriginal people functioned physically, emotionally, mentally and spiritually and Indigenous health system was practiced in the context of their world views and ways of knowing (King, Smith, & Gracey, 2009; National Collaborating Centre for Aboriginal Health, 2013). The notion of health and well-being for Indigenous people is different from that of the European mainstream society. For Indigenous people health and well-being is not just the absence of disease or the physical health, it is based on the balance of the four elements of life, that is, the physical, emotional, mental and spiritual elements of life (King et al., 2009). Culture, language and connection to family, community, land and natural environment were crucial to the well-being of Indigenous people and this traditional Aboriginal life provided them with conditions for a solid childhood foundation (King et al., 2009; Royal Commission on Aboriginal Peoples, 1996). Culture and traditions were passed down to younger generations through teachings and role modeling by elders to ensure cultural continuity (Partridge, 2010; Greenwood et al., 2007). These traditional teachings also form the

basis of positive self-image and healthy identity for Indigenous people as individuals and a community (King et al., 2009).

However, the impacts of colonization and residential schools led to the disruption of the Indigenous health knowledge system and traditional practices. The intent of the colonial policies, residential schools and foster care was for cultural genocide and to assimilate Indigenous people into the European culture and ways of life (Partridge, 2010). The social consequences and intergenerational impact of these colonial actions has led to disruption of families and communities, loss of connection to land and natural environment as well as loss of language, parental skills, child rearing practices, culture, and identity (King et al., 2009; C. Partridge, 2010; Royal Commission on Aboriginal Peoples, 1996).

Today, through resilience and determination Aboriginal people are in the process of reclaiming their lost language, culture and traditional knowledge and values as an explicit basis for collective identity and community cohesion (Partridge, 2010; King et al., 2009). Children have been the focal point in this process, as stated Royal Commission on Aboriginal Peoples (RCAP), “In early stage of development, children learned how to interpret and respond to the world. They learned how to walk on the land, taking in the multiple cues needed to survive as hunters and gatherers; they were conditioned to see the primacy of relationships over material possessions; they discovered that they had special gifts that would define their place in and contribution to the family and community” (Royal Commission on Aboriginal Peoples, 1996). Therefore, early childhood care and development is one of the priorities of the Aboriginal communities.

For First Nations people, child development strategies are viewed through a holistic health approach, where the family, elders and community as a whole contribute to the development of a ‘whole child’ -the body, mind and spirit of a child- through caring, nurturing and guidance (Ball, 2005; King et al., 2009). This holistic approach includes fostering nutrition, preventive health, socialization, education, and Aboriginal language, culture and identity in a child’s developmental process (Ball, 2005).

Consequently, Aboriginal early childhood development programs as stated by Greenwood, are required to be “designed, delivered and built on the values and ways of the

family and community, in ways that fosters Aboriginal children's identity as inherent and integral to their healthy growth and development" (Greenwood, 2006). Aboriginal Head start program is one of such early childhood learning programs that is based on 'whole child' development and that fosters and promotes cultural strength, congruence and identity and through the local control of its design and delivery of a holistic strategy to child development that is inherent its services (Greenwood et al., 2007).

Program Background (BC First Nations Head Start On-Reserve Program)

In the mid-1990s, the Royal Commission on Aboriginal People (RCAP) reiterated the need for a more accessible Aboriginal-specific early childhood program that would serve to reinforce Aboriginal identity, instill values, attitudes and behaviors that gives expression to Aboriginal culture and not just a singular focus on cognitive development (Greenwood, 2006; Royal Commission on Aboriginal Peoples, 1996). Following this reaffirmation, in 1998 Aboriginal Head Start on Reserves was established as an extension of the ASHUNC program for children and families living on-reserve communities (Greenwood, 2006).

In the same year (1998), the BC regional Head start on Reserve was initiated, the BC First Nations Head Start (BCFNHS) on Reserve program (Terbasket & Greenwood, 2007). It was initiated as a community- based early intervention programming that considers child's development in the holistic way, with its framework enfolded in the guidelines, principles and components of the national ASHOR program (Terbasket & Greenwood, 2007). Initially, the BCFNHS On-Reserve Program was funded by Health Canada's First Nations Inuit Health Branch, but today it is being funded and managed by First Nations Health Authority (BC First Nations Head Start, 2007b; Sterling Consulting, 2004). Currently, First Nations Health Authority funds over 70 Head Start projects across the province of BC, to enhance early childhood development, school readiness and overall family health and wellness for First Nations preschool children (birth to six years old) on reserve (BC First Nations Head Start, 2007b; Sterling Consulting, 2004).

The BCFNHS on Reserve program supports locally-controlled and designed early intervention strategies that provides First Nations children with opportunities to develop a positive sense of themselves, a desire for learning, and successes to build upon (BC First Nations Head Start, 2007b). Community elders and parents play important roles in all programs, through continuous involvement, support and guidance. BCFNHS program also incorporates the

six core components in communities in ways that seem best for the program to work in each community using five key delivery models are being used to deliver programs across the region (Sterling Consulting, 2004),

1. Outreach and Family Programming: part-time or full-time model
2. Stand-Alone Model
3. Daycare Model
4. Preschool Model
5. Combination Model

The outreach and family programming model is delivered through home visiting services to children and families, particularly in communities where there is lack of infrastructure and means of transportation or where there is limited number of children to run a centre-based program (BC First Nations Head Start, 2007a). On the other hand, a stand-alone program is a centre based program Head Start program that function on its own either from scratch or from a preexisting program (BC First Nations Head Start, 2007a). A Daycare and preschool models use an already existing and fully functioning centre-based daycare or preschool services but incorporate the six components and assist in funding the program (BC First Nations Head Start, 2007a).

Lastly, the combination model of delivery is very flexible. Head Start funds can be used to enhance and/or offer an array of services to children 0–6 years and to their families (language nests, Mother Goose, parent-tot, outreach services, parenting programs, etc.), which collectively addresses the Head Start six components (BC First Nations Head Start, 2007a; Terbasket & Greenwood, 2007). The outreach and combination model has been the most useful for communities with limited capacities and small number of children between 0-6 years (Terbasket & Greenwood, 2007).

Some BCFNHS programs are almost 20 years in existence, conducting a program evaluation is overdue. A program evaluation of the BCFNHS program will be beneficial for both federal and provincial government and more importantly Aboriginal children, families and communities on reserves. As mentioned above, program evaluation will help determine if the

BCFNHS program is achieving intended outcomes, help identify areas in need of improvement, as well as improve the management of funds.

Purpose

The purpose of this paper is to articulate the need for the evaluation of the BC First Nations Head Start on Reserve (BCFNHS) program, a regional ASHOR program. Using other evaluated Aboriginal early childhood development programs as case studies, this paper tries to develop an evaluation framework with measurable instruments for the evaluation of BCFNHS program.

As articulated by Ball, one of the major challenges of evaluating AHS programs is the lack of appropriate instruments to measure Aboriginal children's development in ways that are readily amenable to standardized scoring and composite analysis (Ball, 2008). As it was in the case of the Impact Evaluation of AHSUNC, where validity and reliability of data could not be established, because research design did not include comparison or control groups and detailed information from for each community was lacking (Ball, 2008; Public Health Agency of Canada, 2012b). These factors altogether account for increased lack of confidence in the validity and generalizability of results generated. As a result, this paper focuses on the development of regional-based program evaluation framework rather than a national approach used in the case of AHSUNC (Public Health Agency of Canada, 2012a). Furthermore, a regional approach will allow the use of less complex approaches to bring together detailed empirical evidences that are specific to region/province, especially since huge differences exist in programs across different regions and even between communities. The regional approach therefore minimizes the complexity of the research design and should generate more valid and reliable results. Finally, by focusing on a regional approach rather than a community-based approach, a regional-based framework will help provide preliminary overall information about the effectiveness of the head start on-reserve programs across BC. Then, subsequent community-based frameworks can be easily adapted from a regional framework, and lessons learned can be readily applied to improve the framework.

Using a comparative analysis, this paper explores dimensions of evaluation used in the process of program evaluation such as evaluation approaches, evaluation design, scoring

criteria, outcome measures and data collection methodology, that would be appropriate and suitable for the evaluation of the BC regional Head Start program (BC First Nations Head Start on Reserve programs).

Program Evaluation

According to Mertens, evaluation is defined as, “an applied inquiry process for the collecting and synthesizing evidence that culminates in conclusions about the state of affairs, value, merit, worth, significance, or quality of a program, product, person, policy, proposal or plan” (Mertens, 2014). In public health, program evaluation is an important component of research and practice that assesses the impact public health programs and policies have on improving health and quality of life of people and communities (Harris, 2016). It is undeniably the cornerstone for program improvement and its purpose is for making judgment about program’s worth or value (Harris, 2016).

Several methods and approaches can be adopted in the process of evaluating a program and selection of these methods and approaches is an important issue for evaluators (Chen, 2005). There various iterations of steps involved in program evaluation, in order to have a focused analysis, the evaluation framework analysis of this paper is based on Mertens’ description of evaluation steps. According to Mertens, there are two major steps involved in planning an evaluation, the focusing and planning stages (Mertens, 2014). The first step in planning an evaluation is focusing the evaluation, in this stage what is being evaluated, the purpose of evaluation, identification of stakeholders, evaluation approach, evaluation questions, evaluation research design and constraints within the evaluation are determined (Mertens, 2014). The next step is the planning stage, this entails data collection, analysis, interpretation and use (Mertens, 2014). A brief description of these steps is important due to their relevance in the subsequent case analysis of the evaluation design framework of four identified Aboriginal ECD programs case studies.

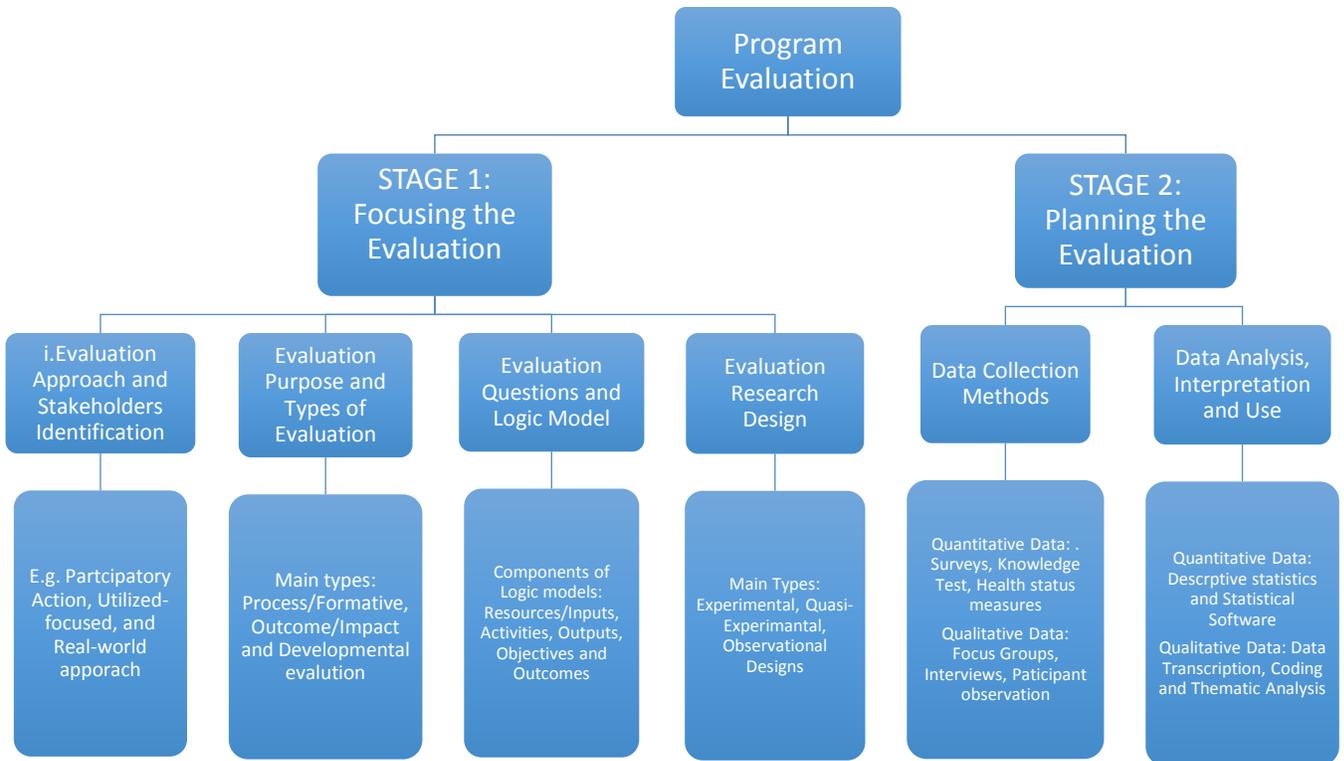


Figure 1. An Illustration of Program Evaluation Design Framework (Mertens, 2014)

1.1. FOCUSING STAGE

1.1.1. Evaluation Approach and Stakeholders Identification

Evaluation approach refers “to an integrated set of options used to do some or all of the tasks involved in evaluation (Better Evaluation, n.d.). There are several evaluation approaches to public health evaluation research. These includes, participatory evaluation, the utilized-focused evaluation, the formative/real-world evaluation, and others (Better Evaluation, n.d.). The most commonly used approach is the participatory action evaluation (Harris, 2016).

The participatory action approach employs the principles of community-based participatory model through a collaborative and equitable partnerships with stakeholders (Harris, 2016). It involves radically rethinking who initiates and undertakes the evaluation process, and who learns or benefits from the findings of the evaluation (Better Evaluation, n.d.;

Zukoski, 2002). Also, in this approach, stakeholders (internal or external to the organization) who have vested interest in the program, its development and implementation make up the evaluation team, this may include, community organizations, staff members, consumers, cultural groups and those at a distance from decision making (Harris, 2016). These stakeholders are actively engaged in developing the evaluation and all the phases of implementation of the evaluation process (Harris, 2016).

Through a participatory model approach, knowledge, skills and expertise of stakeholders can be shared amongst stakeholders and diverse perspectives and cultural context of the initiative can be integrated in the evaluation process, which will impact the evaluation design and outcomes (Harris, 2016; Zukoski, 2002). Utilization of this approach helps to empower and build capacity among stakeholders, it also helps with the identification of most relevant and needed evaluation question and improve the use and accuracy of evaluation results and outcomes (Harris, 2016). Nevertheless, it could be time consuming, expensive and there is a potential for conflict among stakeholders (Harris, 2016).

1.1.2. Evaluation Purpose and Types of Evaluation

Commonly, purpose of performing a program evaluation could be to identify areas for improvements, to inform decision-making strategies of programs, to clarify options and provide information about programs. The type of evaluation employed in an evaluation process relies on the purpose and kind of questions the evaluation is required to answer, generally, there are three main types of evaluation, the process/formative evaluation, outcome/impact evaluation and developmental evaluation (Harris, 2016; Mertens, 2014; Posavac, 2015). A process evaluation (also known as formative evaluation) focuses the implementation of a program and assesses the extent to which a program is being implemented and whether it is being delivered as intended (Harris, 2016; Mertens, 2014; Posavac, 2015). It provides information on the effectiveness of program functions, which is used to identify areas in need of improvement (Harris, 2016; Mertens, 2014; Posavac, 2015).

An outcome evaluation (also known as impact evaluation) determines the extent to which expected and unexpected outcomes of a program were achieved and if the changes were caused by the. It provides evidences about the effectiveness of a program (Harris, 2016; Mertens, 2014; Posavac, 2015). Quite often, evaluation projects use both process and outcome evaluations and are considered the traditional types of evaluation. The developmental evaluation is a new innovative type of evaluation. It provides on-going real-time feedback to inform development, implementation or assessment of a program (Mertens, 2014; Posavac, 2015).

1.1.3. Evaluation Questions and Logic Model

Evaluation questions are generated based on the purpose of the evaluation and by evaluators and stakeholders (evaluation team) through series of brainstorming sessions (Harris, 2016; Mertens, 2014). Generating relevant evaluation questions is significant because it drives the structure and framework of the entire evaluation process, including the evaluation research design and data collection methods (Harris, 2016). Essentially, evaluation questions are selected based on concerns and priorities of the stakeholders, components of the logic model, previously developed outcomes, objectives of the initiative and the expertise of the evaluation team (Harris, 2016).

A logic model can be used to guide the process of developing evaluation questions. Logic model is a schematic diagram that shows the relationship between contextual factors and programmatic elements of the program, that is, program resources/inputs, activities, outputs, objectives and outcomes (short, intermediate and long term outcomes) (Mertens, 2014; Schmitz & Parsons, 1999; Harris, 2016). These elements are connected through arrows to depict a logical flow from one element to the other and evaluation questions can be framed from each of these elements (Harris, 2016; Mertens, 2014). Logic models are helpful in designing and planning and evaluations, they present an overall structure of the program which is logical and easy to understand and links activities to outcomes and evaluation questions, however, it could be time consuming and inflexible (Harris, 2016).

1.1.4. Evaluation Research Design

Research design in program evaluation determines who is to administer measurement tools or variables, how many groups to have in terms of comparison and how many times to administer variables, while controlling threats to validity of the design (Mertens, 2014). There are three main types of evaluation design, the experimental, quasi-experimental and non-experimental or observational designs (Harris, 2016; Mertens, 2014).

Experimental design is the most rigorous type of design because it entails the use of random assignment of participants into control and intervention groups for comparison, which makes it a rigorous design (Harris, 2016; Mertens, 2014). Quasi-experimental design on the other hand uses non-randomly assigned groups for comparison (Harris, 2016; Mertens, 2014). Both designs are used to determine whether a program made a difference or the program causes the effect/change. However, in public health practice the quasi-experimental design is considered more ethical for assessing initiative impact on population (Harris, 2016). The non-experimental design/observational design lacks a comparison or control group and participants in this design serve as their own control, which makes it a less rigorous approach (Harris, 2016; Mertens, 2014). It is the simplest form of design and it occurs in a single-sample or one-shot posttest design, time series and one-group designs (Harris, 2016; Mertens, 2014).

The ability of each of these designs to yield information that is attributable to or links intervention activities to potential program outcomes varies. The type of evaluation design determines the level of threats to internal and external validity, the more rigorous and costly the design is, the higher the level of confidence in the attribution evaluation results to program intervention (Harris, 2016). Internal validity refers to the ability to attribute effects or impact to the program, while external validity refers to extent to which the conclusions from the research can be generalized to other times, setting and populations (Harris, 2016; Mertens, 2014). The non-experimental design has the least ability to address the threats to both internal and external validity but it is the most feasible design, less time consuming and requires less resources (Harris, 2016; Mertens, 2014). The experimental design on the other hand is the most

rigorous design because it has the most ability to address threats. However, the experimental is the most expensive, time consuming and randomization is unethical in evaluating programs in public health (Harris, 2016; Mertens, 2014). This makes quasi-experimental design a rather better design in evaluating programs, because it is not as expensive as experimental, has no ethical issues and not as less rigorous has non-experimental. However, selection bias may arise but can be improved by matching comparison groups with intervention groups (Harris, 2016; Mertens, 2014).

1.2. PLANNING STAGE

1.2.1. Data Collection Methods

The purpose of data collection is to provide information to previously developed evaluation questions. At the initial stage of data collection, it is important to identify preexisting or secondary data such as census data, vital record, health information systems, administrative data or previously conducted evaluations, that may serve as a comparable data or be reviewed (Harris, 2016). There are two main approaches to data collection, quantitative and qualitative methods.

In selecting the right approach, it is important to consider the most appropriate method that will yield better valid and reliable data, the cost effectiveness of the method and at the same time respect the rights and culture of participants (Harris, 2016). Quantitative data uses different types of measurement instruments (standardized or non-standardized) to determine relationship among variables and provide elementary information about what is being assessed (Creswell, 2013; Harris, 2016; Mertens, 2014). The use of standardized measurements increases the reliability of results. Unlike quantitative, qualitative data provides an in-depth and contextual understanding of participants' experiences, as well as information on the benefits and impacts of the program than quantitative (Creswell, 2013; Harris, 2016).

Examples of quantitative data collection methods include, surveys (questionnaires), knowledge or achievement tests and physiological health status measures (Creswell, 2013;

Harris, 2016). Commonly used examples of qualitative data collection methods include, focus groups, interviews, participant observation, document and record review, photovoice (Creswell, 2013; Harris, 2016; Mertens, 2014). A mixed method approach can also be used in data collection, in this case both quantitative and quantitative methods are used, which draws on the strengths of both methods while negating their weaknesses (Creswell, 2013; Mertens, 2014). Mix methods is considered the best practice because it allows confirmation of findings, provides the most comprehensive answers to evaluation question and can strengthen attribution to program intervention (Harris, 2016).

Evaluation design frameworks are embedded within the research design depending on whether there is a control or comparison group, they determine how and when data will be collected (Harris, 2016). Examples of design frameworks are, longitudinal design, pretest/posttest only, retrospective pretest/posttest and case studies.

1.2.2. Data Analysis and Interpretation

The next step after data has been collected is the data analysis and its interpretation. The approach to data analysis depends on the type of data that was collected, that is, either quantitative or qualitative. Quantitative data can be analyzed using either descriptive or inferential statistics (Harris, 2016). Data from descriptive statistics can be presented tables, chat, and graphs, while inferential statistics make use of inferences and statistical software are used in this case, these include, excel, SPSS, SAS or STATA (Harris, 2016). On the other hand, qualitative data are analyzed through the process of transcription of text, coding and thematic/content analysis. Software are also used to help with this process, examples are, Microsoft word, NVivo N6 and Ethnograph (Harris, 2016; Mertens, 2014).

Methodology- Identification of Aboriginal ECD Programs

A keyword search through electronic databases and Google Scholar was conducted to identify Aboriginal early childhood development programs that have been evaluated, however, it yielded no significant result. This was important to identify evaluated Aboriginal ECD programs so that they can serve as case studies for the comparative analysis of this paper, in order for this paper to develop an appropriate and most applicable evaluation design framework for the BCFNHS program. The combination of the following terms was used during the search; program evaluation, program outcomes, outcome evaluation, program effectiveness, Aboriginal, Indigenous, early childhood development programs, early childhood intervention, early education and care, and early learning program. Since the search through databases and Google Scholar was unsuccessful, a search through Google Search engine was necessary.

Using the same keywords, four Aboriginal early childhood program evaluation documents were identified, which included programs from Canada and Australia. Therefore, this comparative analysis is based on these four programs, namely: The KidsMatter Early childhood initiative (Australia), Little Red Spirit Aboriginal Head Start (Manitoba, Canada), Aboriginal Supported Child Development (British Columbia, Canada), and Northwest Territories Aboriginal Head Start (Northwest region, Canada). The selection of these four programs were based on the following criteria: (1) Aboriginal children as target population, (2) Targets children between the ages of 0 and 6 and (3) Availability of accessible evaluation document.

Description of Programs

Four evaluated Aboriginal childhood programs were identified and used as case studies to explore the evaluation framework that would be suitable and applicable for the evaluation of the BCFNHS program. First is the Northwest Territories Aboriginal Head Start (NWTAHS), it is a region-based head start program that was developed as part of the ASHUNC program, therefore, operates with the six program components for Aboriginal head start program (Northwest Territories Aboriginal Head Start Program, 2008). Currently, there are eight NWTAHS programs in the communities of Fort Smith, Hay River, Fort Providence, Bechokò, Yellowknife/Ndilo, Inuvik, Paulatuk and Fort McPherson (Northwest Territories Aboriginal Head Start Program, 2008). All sites together serve about 40 Aboriginal children between 3 and 4 years of age. Even though English language is the primary language of instruction in all sites, each site determines and integrates its own language. All together seven languages are incorporated into programs, these includes; Chipewyan and Cree (Fort Smith), Weledeh dialect of the Tlicho Language (Ndilo), Tlicho Language (Bechokò), South Slavey (Hay River and Fort 23 Providence), Gwich'in (Fort McPherson and Inuvik) and Inuvialuktun (Inuvik and Paulatuk) (Northwest Territories Aboriginal Head Start Program, 2008). Likewise, the content of cultural activities and level of parental and community involvement are determined by each program site.

The Little Red Spirit Aboriginal Head Start (LRSAHS) is a community-based early childhood development program located in West Broadway and Dufferin (Satellite site) communities in Winnipeg (DeRiviere, 2016). LRSAHS is an urban head start program; therefore, it is modeled after the ASHUNC program and operates within the six program components for head start program as the NWTAHS. It operates from September to June every year, Monday to Thursday and provides child development services to approximately 58 Aboriginal children between the ages of 3 and 6 years in the two communities (West Broadway and Dufferin) (DeRiviere, 2016). Also, it integrates both Ojibway language and Cree language in its program and a high level of parent and community involvement is encouraged (DeRiviere, 2016).

Aboriginal Supported Child Development (ASCD) is a provincial Aboriginal early childhood program located in British Columbia. It provides a community-based program and services in over 40 program sites across BC to children birth to 12 years of age with developmental delays and disabilities (Little Drum Consulting, 2012). ASCD provides its services to children who require extra support in physical, cognitive, communicative, social, emotional and behavioral domains, as well as extra support in a wide range of child care settings such as Head Start, preschool and daycare, and in the child's home (Little Drum Consulting, 2012). ASCD program provides a culturally appropriate program that is grounded and respectful of traditional lands, local cultural practices, and languages of the local program site. Similarly, parents and community supports are very crucial and paramount (Little Drum Consulting, 2012).

Lastly, KidsMatter Early childhood (KMEC), is an initiative funded by the Australian government to develop and implement evidence-based mental health promotion, prevention and early intervention strategies in early childhood education and care services with a high proportion of Aboriginal or Torres Strait Islander population (Slee, Skrzypiec, Dix, Murray-Harvey, & Askill-Williams, 2012). Using four key components KMEC provides schools and services with a framework, implementation process and resources to help children at risk of mental health difficulties. The four components include, creating a sense of community; developing children's social and emotional skills; working with parents and carers; and helping children who are experiencing mental health difficulties (Slee et al., 2012). The goal of the initiative is to ensure improvement in mental health and wellbeing of children from birth to school age, reduce mental health difficulties among children and achieve greater support for children experiencing mental health difficulties and their families (Slee et al., 2012).

The subsequent section gives the comparative analysis of the evaluation steps employed in the evaluation of all four programs, that is, The KidsMatter Early childhood, Little Red Spirit Aboriginal Head Start, Aboriginal Supported Child Development, and Northwest Territories Aboriginal Head Start.

Table 2. Description of Identified Programs

| Program Name | Program Model | Target Population | Program Goals | Location | Evaluation Model |
|---|----------------------|--|--|-------------------------------|-------------------------|
| Northwest Territories Aboriginal Head Start (NWTAHS) | Regional-based | Aboriginal Children (3 and 4 years) | To enhance child development and school readiness by meeting the child’s spiritual, emotional, intellectual, and physical needs, while encouraging locally controlled programs | Northwest Territories, Canada | Regional |
| Little Red Spirit Aboriginal Head Start (LRSHS) | Community-based | Aboriginal Children (3 and 6 years) | To enhance child development and school readiness by meeting the child’s spiritual, emotional, intellectual, and physical needs, while encouraging locally controlled programs | Winnipeg, Canada | Community |
| Aboriginal Supported Child Development (ASCD) | Community-based | Aboriginal Children with developmental delays and disabilities (birth to 12 years) | To enable children who require extra supports to be included in child care settings and communities. | British Columbia, Canada | Regional |
| KidsMatter Early childhood (KMEC) | National-based | Aboriginal children at risk of mental difficulties | The goal of the initiative is to ensure improvement in mental health and wellbeing of children, reduce mental health difficulties among children and achieve greater support for children experiencing mental health difficulties and their families | Australia | Regional |

Findings and Program Evaluation Framework Analysis

This analysis compares each step involved in the evaluation process of the four identified Aboriginal early childhood development programs. First, these programs are similar and different in certain ways. The Little Red Spirit Aboriginal Head Start (LRSAHS) and Northwest Territories Aboriginal Head Start (NWTAHS) are head start programs in Canada, but LRSAHS is a community-based head start, while NWTAHS is a regional head start consisting of several program sites across the Northwest region. Thus, the program evaluation of LRSAHS was a community-based evaluation involving its two program sites (Dufferin and West Broadway) and NWTAHS evaluation on the other hand was a regional program evaluation (DeRiviere, 2016; Northwest Territories Aboriginal Head Start Program, 2008). In the NWTAHS evaluation, four communities were selected to participate in the evaluation based on their ability to complete necessary administrative procedures, information to parents/guardians and established dates and locations for data collection in the set time periods (Northwest Territories Aboriginal Head Start Program, 2008).

Furthermore, both the KidsMatter Early childhood (KMEC) and Aboriginal Supported Child Development (ASCD) are target-focused early childhood development programs, however, their target populations differ. The KMEC program targets children who are at risk of mental health difficulties and conversely, the ASCD program targets children who have developmental delays and disabilities (Little Drum Consulting, 2012; Slee et al., 2012). Furthermore, three out of the four programs (LRSAHS, NWTAHS and ASCD) are based on models with core components that are similar in content and/or concept. School readiness, cognitive development, social and emotional skills, family and community support are key parts of these components (DeRiviere, 2016; Little Drum Consulting, 2012; Northwest Territories Aboriginal Head Start Program, 2008). Although not all four programs have culture and language as a key component of their program model, all programs are conceptualized and

guided within the principles of the Indigenous/Aboriginal views of health and well-being, that is, the holistic approach to health.

In the same way, the steps involved in the evaluation process are similar and different across all four program evaluations. The following provides the comparative analysis of each of the steps involved in carrying out an evaluation.

1.3. FOCUSING STAGE

1.3.1. Evaluation Approach and Stakeholders Identification

Comparing the evaluation approaches employed by all four programs, only two (ASCD and NWTAHS) identified the use of participatory model of evaluation as their evaluation approach. No information was provided about evaluation approach employed or those that constituted the evaluation team in the LRSHS evaluation document. The evaluation team for NWTAHS comprised of the external evaluators, NWTAHS staff and *Western Arctic Aboriginal Head Start Council (WAAHSC)* (Northwest Territories Aboriginal Head Start Program, 2008). The WAAHSC consisted of community members who represent the voice of Aboriginal children, parents and families. This model was employed by NWTAHS to ensure the evaluation framework was developed in a manner that is respectful of diverse culture and helps capacity building of NWTAHS staff (Northwest Territories Aboriginal Head Start Program, 2008).

Similarly, ASCD evaluation team included an ASCD Steering Committee members (staff and community members), the ASCD Provincial Coordinator and Little Drum Consulting (external evaluator) (Little Drum Consulting, 2012). Through a collaborative effort, members were involved in the stages of evaluation process including the development of evaluation questions, design methods and data sources and collection, hence, a participatory action model (Little Drum Consulting, 2012). In contrast, in the evaluation work of KMEC program, there was limited involvement or engagement with community members or staff. The only external involvement besides external evaluators, was in form of consultation made with an Aboriginal

woman (Ms Kim O'Donnell) who is a Research Officer in Health Care Management (Slee et al., 2012).

1.3.2. Evaluation Purpose and Types of Evaluation

The purposes of the evaluation were clearly stated in all four cases, however, the process of developing evaluation questions was not clearly described and logic model were only provided by two of the cases. The purpose of evaluating LRSHS, ASCD and NWTAHS programs were similar, which was to assess the outcome/impact of the programs on its participants that is, the outcome evaluation type was used. Specifically, primary purpose of evaluating the LRSHS program was to assess the academic (such as math, reading, writing assessments, and rates of graduation) and developmental outcomes (confidence as a learner, independence as a learner, levels of curiosity) of children who participated in the program (DeRiviere, 2016). While the ASCD evaluation purpose was to provide insight and feedback into experiences and impacts of ASCD by both parents/caregivers and ASCD staff (Little Drum Consulting, 2012). Lastly, one of the purpose of evaluating NWTAHS program was to determine the impact/outcomes of the program on children, families and communities (Northwest Territories Aboriginal Head Start Program, 2008). Overall, the purpose of evaluating all three programs were to investigate if intended outcomes were being achieved.

Conversely, the purpose for evaluating the KMEC initiative was to provide insight and understanding of effectiveness of the initiative implementation in relation to its target population, intuitively, a process evaluation type was employed (Slee et al., 2012). This is similar to the second purpose of evaluating NWTAHS program. Precisely, KMEC evaluation purpose was to investigate the extent to which the KMEC Model relates to early childhood services in communities with relatively higher proportions of Aboriginal or Torres Strait Islander peoples, while NWTAHS evaluation was also to know what was working in the program, how the children were doing, and to gain feedback regarding program implementation (Northwest Territories Aboriginal Head Start Program, 2008; Slee et al., 2012). The evaluation findings were intended for program development, enhancement, strength building and future planning,

which follow the process evaluation type. Therefore, both process and outcome evaluation was used in the case of NWTAHS.

1.3.3. Evaluation Questions and Logic Model

In the NWTAHS evaluation, five questions were developed by evaluation team, likewise in the KMEC evaluation four focused evaluation questions were developed (see Appendix I) (Northwest Territories Aboriginal Head Start Program, 2008; Slee et al., 2012). Although, it was iterated that evaluation questions were developed, information regarding evaluation questions were not provided by the ASCD and LRSHS documents (DeRiviere, 2016; Little Drum Consulting, 2012).

Also, logic models were created for LRSHS and NWTAHS evaluations, which were based on the six Aboriginal Head Start program components (DeRiviere, 2016; Northwest Territories Aboriginal Head Start Program, 2008). However, logic model that was developed in the LRSHS evaluation was more detailed and comprehensive in comparison to NWTAS model. The LRSHS model gave a clear description of the inputs and activities were based on the six program components and short-, intermediate- and long term outcomes (see Appendix II). Unlike the NWTAS model that was stripped of information and only consisted of few abstract headings. Moreover, there was no evidence provided to suggest that a logic model was created to support the evaluation process in both KMEC and ASCD program evaluation (Little Drum Consulting, 2012; Slee et al., 2012).

1.3.4. Evaluation Research Design

In the evaluation of both ASCD and KMEC a single-sample/one-time posttest design (non-experimental) was used because there was no comparison or control group and information was gathered at one time (Little Drum Consulting, 2012; Slee et al., 2012). Unlike the ASCD and KMEC evaluations, NWTAS and LRSHS evaluations employed the use of the quasi-experimental design, which is more rigorous than the non-experimental design. In the

NWTAHS and LRSHS evaluations, children who attended the head start programs were compared with their age or grade-matched group of peers who had not attended the program (DeRiviere, 2016; Northwest Territories Aboriginal Head Start Program, 2008). Whereas ASCD and KMEC evaluation assessed participants in a single time-shot without comparison groups or baseline information.

Table 3. Summary of the Comparative Analysis of the Four Identified Aboriginal ECD Programs

| Program Evaluation | Evaluation Approach and Stakeholders Identification | Evaluation Team | Evaluation Purpose | Types of Evaluation | Evaluation Questions and Logic Model |
|---|--|--|--|--------------------------------|---|
| Northwest Territories Aboriginal Head Start (NWTAHS) | Participatory Action Approach | External evaluators, NWTAHS staff, WAAHSC council (including community members) | To determine the impact/outcomes of the program on children, families and communities | Outcome Evaluation | Less detailed logic model |
| Little Red Spirit Aboriginal Head Start (LRSHS) | Not Provided | Not Provided | To assess children’s academic and developmental outcomes | Outcome Evaluation | Detailed logic model |
| Aboriginal Supported Child Development (ASCD) | Participatory Action Approach | External evaluators, Provincial Coordinator, ACSD Steering committee (staff and community members) | To provide insight and feedback into experiences and impacts of ASCD by both parents/caregivers and ASCD staff and to gain feedback regarding program implementation | Process and Outcome Evaluation | Not Provided |
| KidsMatter Early childhood (KMEC) | Formal consultation with an expert | External evaluators | To provide insight and understanding of effectiveness of the initiative implementation | Process Evaluation | Not Provided |

| Program Evaluation | Evaluation Research Design | Data Collection Methods | Data Sources | Outcome Measures | Data Analysis |
|---|--|---|---|---|--|
| Northwest Territories Aboriginal Head Start (NWTAHS) | Quasi-experimental Design | Longitudinal and cross-sectional Pretest/Posttest Quantitative method- Standardized and norm-referenced tools | Standardized tests administered directly to Children | Cognitive skills Social developmental skills Language and literacy skills | Software- Inferential statistics (SPSS software) and Descriptive statistics (data/chart analysis from Microsoft Excel) |
| Little Red Spirit Aboriginal Head Start (LRSHS) | Quasi-experimental Design | Retrospective pretest/post-test Mixed methods. Quantitative- Record reviews and Surveys Qualitative- Semi-structured in-person interviews | Preexisting children's records, Surveys administered to teachers and program staff, and Interviews administered to parents | Academic skills Social and emotional developmental skills Language and literacy, Culture and Traditions Parenting skills | Quantitative- Inferential Statistics Qualitative- Not provided |
| Aboriginal Supported Child Development (ASCD) | Non-experimental Design (single-sample/one-time posttest design) | Post-test only Quantitative data- Surveys | Surveys administered to parents/caregivers and ASCD staff | Language. Culture and traditions Emotional and social development | Descriptive statistics (Charts and tables) |
| KidsMatter Early childhood (KMEC) | Non-experimental Design (single-sample/one-time posttest design) | Post-test only Mixed methods. Quantitative- Surveys and Facilitator's reports Qualitative- Interviews and Photo study | Interviews administered to parents and staff. Questionnaires and Photo study administered to staff. Preexisting facilitator's records | Not an outcome evaluation | Quantitative- hierarchical linear modelling Qualitative- Transcription and Thematic analysis |

1.4. PLANNING STAGE

1.4.1. Data Collection Methods

Selection of tools for data collection and outcomes measures for the NWTAHS were based on measures used in the preexisting baseline studies collected in 2000-2001 and 2003-2004, hence, a longitudinal and cross-sectional pretest/posttest quantitative method of data collection was utilized (Northwest Territories Aboriginal Head Start Program, 2008). Children outcomes (literacy skills, social skills and receptive vocabulary) were measured using standardized and norm-referenced tools that use specific procedures for administration and scoring. These include; (1) *Peabody Picture Vocabulary Test or PPVT-IV* as a measure of language and literacy, (2) *Wechsler Individual Achievement Test, Abbreviated or WIAT-II-A* as a measure of reading, numeracy and word writing, (3) *Social Skills Rating Scale or SSRS (Gresham and Elliot, 1990)* as a rating scale to identify social skills (Northwest Territories Aboriginal Head Start Program, 2008).

A mixed method approach was used to collect data in the LRSHS evaluation. Children outcomes (academic and developmental outcomes) were assessed using the quantitative data collection approach, while program impacts on children and parents were also assessed using the qualitative data collection method (DeRiviere, 2016). Overall, a retrospective pretest/post-test mix method data collection approach was employed in the evaluation of LRSHS program. The quantitative method was used to assess children outcomes in two ways: First, data that tracked attendance records, math assessments, writing skills, and reading proficiency scores were reviewed, as opposed to a direct administration of tests to children as in the NWTAHS approach (DeRiviere, 2016). Second, Likert scale statements (survey questionnaires) were administered to school teachers who rated head start children's social development in comparison to their non-Indigenous peers (DeRiviere, 2016). Also, Likert scale statements were administered to Little Red Spirit teaching staff to identify measurable changes in head start children's school readiness and social development skills (DeRiviere, 2016). On the other hand, the qualitative method was used to gain insight to parents' own perception of academic and

social developmental skills of children and how the program has impacted them, the semi-structured in-person interviews was used for this purpose (DeRiviere, 2016).

Furthermore, a snap-shot post-test quantitative data in form of survey was used for the data collection in the ASCD program evaluation. Impact of ASCD program on daycare, home and community was measured through survey questionnaires that were administered to staff and parents/caregivers of children who attended the program (Little Drum Consulting, 2012). Likewise, the post-test evaluation framework was used in the data collection for KMEC evaluation, but in a mixed method data collection approach (Slee et al., 2012). The quantitative method used was the survey questionnaire, which was administered to staff to identify any differences or similarities in the uptake of KMEC in the 10 services with relatively high Aboriginal and Torres Strait Islander populations compared to services with populations of under 25% Aboriginal and Torres Strait children enrolled (Slee et al., 2012). Whereas, the qualitative method used was in three different forms, interviews, photo study and facilitator's reports. Interviews were administered to parents and staff and photo study were administered by staff to photograph a scene that represented what having KMEC in their service had meant to them, while the facilitators' reports were reviewed to understand any barriers and facilitating features specific to Aboriginal and Torres Strait Islander contexts (Slee et al., 2012).

1.4.2. Data Analysis

Statistical software (SPSS version 11) and the data/chart analysis features from Microsoft Excel were used for the inferential analysis of the quantitative data collected in the NWTAHS analysis (Northwest Territories Aboriginal Head Start Program, 2008). In contrast, the quantitative data collected for ASCD evaluation was analyzed using the descriptive analysis, that is, charts and tables (Little Drum Consulting, 2012). The mixed method of data collection was used in the KMEC evaluation, hence, the data collected was analyzed differently. The qualitative data transcribed and thematically analyzed, while the quantitative data was analyzed using hierarchical linear modelling and results were triangulated (Slee et al., 2012). Also, the LRSHS evaluation used a mixed method approach, however, information on how the

data were analyzed were not provided but from the results, but the inferential statistics method was used for the quantitative data analysis (DeRiviere, 2016).

1.5. Program Evaluation Findings

The KMEC evaluation framework was able to provide answers to the previously developed evaluation questions. For instance, information about the implementation process and engagement with the KMEC model, results from the quantitative analysis showed improvement in the implementation process and engagement of KMEC model overtime in services with a high proportion of Aboriginal and Torres Strait Islander children, though it was not significantly different from that of low proportion services (Slee et al., 2012). Also, the analysis of the facilitators' comments that was recorded over time also showed a gradual increase uptake and engagement with the model, 10% increase in the use of component booklets, increased commitment of 30% to the use of the 'plan-do-review' process, and greater involvement (50% increase) of staff in the planning and implementation (Slee et al., 2012). Furthermore, results from the qualitative analysis also provided more information from diverse perspectives about the implementation of the KMEC model. The photo study analysis provided a visual representation of how staff, parents and elders were able to engage with the KMEC model and how the model was being implemented in terms of program activities (Slee et al., 2012). The results from interviews also provided positive feedback about KMEC model providing parents and family supports and community connections (Slee et al., 2012).

Findings from the analysis of the ASCD survey questionnaires administered to staff and parent/caregivers showed positive impacts on children, parents and community and the strengths, challenges and areas in need of improvements were identified (Little Drum Consulting, 2012). For instance, program impacts included children's ability to integrate and socialize in daycare, positive experience for child and caregivers/family, positive impact on child's social and emotional development, positive impact on primary caregivers and family as a whole, and positive impact on parenting skills (Little Drum Consulting, 2012). One of the strengths of the program identified from the evaluation was the use of variety of cultural

resources to integrate Aboriginal culture and language into programs, including traditional foods, Aboriginal songs, Aboriginal books and puzzles (Little Drum Consulting, 2012). Also, some of the challenges identified were staffing, meeting the demands of increasing referrals and waiting lists and travel time and associated costs. Lastly, program areas in need of improvement identified were in terms of improving Aboriginal (culture, language and holistic views) components of programming, program integration into communities and funding (Little Drum Consulting, 2012).

Furthermore, results from the NWTAHS evaluation were positive to an extent, from the head start children and their age-matched peers (Northwest Territories Aboriginal Head Start Program, 2008). However, the two groups fell within the average scores in verbal skills and schoolwork achievement. Also, the longitudinal quantitative showed that NWTAHS graduates maintained their progress and/or gains made during the AHS program year such as cognitive skills, verbal skills and prosocial skill functioning (Northwest Territories Aboriginal Head Start Program, 2008). Moreover, from the analysis cross sectional data, result showed differences across location and gender. The result showed stronger scores in receptive vocabulary/verbal skills between the AHS graduates who attended urban AHS programs as compared to those graduates who attended rural/remote programs longitudinal quantitative data analysis, result showed that there were no significant differences in verbal skills and school work achievement between in the NWT (Northwest Territories Aboriginal Head Start Program, 2008). Also, result showed no significant differences between NWTAHS boys and NWTAHS girls on verbal, reading and math skills (Northwest Territories Aboriginal Head Start Program, 2008).

LRSHS evaluation produced significant evidence that the program had positive effects on children. LRSHS children had higher cumulative school attendance rate, good mathematical thinking skills, although students in the comparison group were more likely to be approaching grade level in math (DeRiviere, 2016). Also from teachers' assessment ratings, LRS students were rated higher by teachers than their counterparts on several variables, such as level of curiosity, verbal and written communication skills, staying on task, bringing healthy lunches and snacks to school, and expressing their needs and feelings in healthy ways (DeRiviere, 2016). Furthermore, qualitative data analysis showed that positive impacts on children, parents and

families. For example, in the interviews parents gave accounts of their children learning the alphabet and numbers in Ojibway or Cree, as well as the Medicine Wheel tool and the Seven Sacred Teachings and other traditional practices (DeRiviere, 2016). Results also showed that children and families have a better understanding of cultural practices and traditions and support were offered to parents and families (DeRiviere, 2016). It showed LRSHS program offered learning opportunities to parents through workshops and training sessions and provision of information about resources in the community, health information, and informal supports such as providing opportunities for socialization and parenting advice (DeRiviere, 2016).

Discussion

Evaluation process of all four cases had its own strengths and weaknesses. Considering the importance and benefits of community engagement and the principles of ownership, control, access and possession (OCAP) in research practice as previously mentioned, the use of the participatory action model as an evaluation approach in the evaluation of an Aboriginal program cannot be overlooked (Schnarch, 2004). Additionally, this approach would help make the evaluation process culturally appropriate and relevant with the incorporation of Indigenous ways of knowing and world views, particularly in defining terms and assessing evaluation tools and methods. Because the participatory action approach ensures all project participants are involved in all the steps of the evaluation project, determination of evaluation questions that need to be addressed, definition and identification of sources of data required to answer evaluation questions, and data collection methods and analysis are carried out within the context of Indigenous knowledge. For example, the definition of validity and reliability in research practice is based on the western knowledge; these can be defined from the knowledge of the Indigenous worldview to ensure the process is appropriate for the Aboriginal children and communities. Utilization of this approach is one of the major strengths of the NWTAHS and the ASCD evaluation, which is very crucial to consider in the development of BCFNHS regional evaluation framework.

The evaluation purpose corresponded with the type of evaluation used in all four cases. However, the evaluation of ASCD and KMEC programs had no logic model. A major strength of the LRSHS evaluation was the logic model that was developed. The LRSHS logic model was very informative, detailed and easy to understand, unlike the NWTAHS model that lacked content (see Appendix I and II). A detailed logic model is more desirable because it provides a visual representation of the logic behind of the program that is easily explainable and understandable to others (Mertens, 2014; Schmitz & Parsons, 1999). Additionally, detailed logic model is beneficial as it allows for a comprehensive evaluation of relevant activities, resources and

outcomes of the program (Schmitz & Parsons, 1999). Therefore, the LRSHS logic model can serve as a prototype model that can be replicated in the BCFNHS evaluation framework.

Another major strength of both NWTAHS and LRSHS program evaluations was the type of research design used. Both program evaluations utilized the quasi-experimental design, unlike the non-experimental design used in ASCD and KMEC evaluation. It is noteworthy that LRSHS evaluation document stated an experimental design was used, however, the information provided suggests a quasi-experimental design. This is because there was no evidence of random assignment of participants and the experiment and control groups and intervention group was only compared with the age-peered group. Although not as rigorous (random assignment of participants into control and intervention groups) as experimental design, quasi-experimental design is more appropriate putting into consideration ethical issues, particularly how it is improper to deny people participation in a population-based health intervention program (Harris, 2016).

Also, the quasi-experimental design is more rigorous and has fewer threats to internal and external validity compared to the non-experimental. Even though there is potential of selection bias in selecting comparison groups, matching can be used to counter this effect as used in both NWTAHS and LRHS evaluations, which improves the confidence and attribution of evaluation findings to the program. Therefore, it can be concluded that the results from NWTAHS and LRSHS are more valid and reliable than those of ASCD and KMEC. However, it was not clearly stated if the age-matched peers were Aboriginal children and/or non-Aboriginal children – only that children from both comparison and intervention groups were from the same class. This is very important because the identity and characteristics of the comparison and intervention groups should be similar and major difference between the two groups should be attendance of the program, as it also relates to the validity of the results. This needs to be considered in the development of BCFNHS regional evaluation framework.

Outcome measure is one of the major challenges of evaluating Aboriginal Head start program (Ball, 2008). NWTAHS and LRSHS both used a quantitative data collection method to assess children outcomes. However, NWTAHS used standardized and norm-referenced tools

for assessing and testing children, while LRHS reviewed records of children school academic performances, which were not biased. Although the standardized tools are preferable because they generate more readily interpretable results, in the case of NWTAHS evaluation there was problem in obtaining parents' consent due to the fear of rating their children low (Northwest Territories Aboriginal Head Start Program, 2008). However, this can be improved with the use of participatory approach where community members are involved and empowered by the process and gain more understanding of the evaluation procedures and tools.

From the evaluation findings, it was evident that evaluations (LRSHS and KMEC) that utilized the mixed methods approach provided more in-depth and comprehensive information about the programs and findings were confirmed with the used of both quantitative and qualitative methods. For instance, in the LRSHS evaluation, the use of mix method to data collection approach allowed children outcomes to be assessed based on their unbiased school performances, in addition to in-depth information provided by parents/caregivers about their own perceptions of their children's performances. The quantitative approach could measure and assess children's outcomes (such as social skills, academic achievement and school readiness) through school records and scores, eliminating the effect of participants' bias that could occur in an interview. The qualitative approach allowed not only the contextual understanding and in-depth assessment of impacts of the program on children but also on their parents and families. Interviewers were able to ask open-ended questions, which encouraged participants to provide detailed responses and understanding of how and why the program had impacts was provided. Also, the KMEC mix methods approach allowed a very detailed feedback of implementation process of the initiative, allowing each evaluation question to be properly answer and process well understood, which will impact decision making about program improvement and its effectiveness. In both cases (LRSHS and KMEC), the initial purposes of the evaluations were fulfilled (see).

Unlike LRSHS and KMEC, ASCD and NWTAHS utilized a single approach, which is satisfactory. Even though detailed program impacts, strengths, challenged and areas in need for improvements were identified by the ASCD quantitative (Survey questionnaires) analysis, these

findings suffer the probability of participants' bias. This is because findings were only based on participants' perceptions, which limits the reliability of the results might not be reliable. Also, NWATHS quantitative results were could be valid due to use of standardized tools, however, results were not informative or detailed to provide an understanding of what made the program effective and program impacts on parents and families could not be assessed. Both evaluations to some extent fulfilled their purposes but not completely, particularly in the case of NWTAHS were program impacts on parents and families were not explored.

Recommendations

Jurisdictional Responsibility

The BC First Nations on Reserve Head Start program has been in existence over 20 years and no evaluation project has been developed or undertaken to show accountability of invested funds or effectiveness of program and its impacts on children, parents and communities. There is a need for both government and community members to take actions in ensuring the program evaluation of BCFNHS is developed and implemented. All government jurisdictions responsible for funding, coordinating, planning, and delivery of programs to British Columbia First Nations should acknowledge their roles as well as take actions in ensuring the BCFNHS program is evaluated. These include, the provincial First Nations Health Authority (FNHA), and the BC Regional and Provincial Health Authorities, the BC Ministry of Health, and Health Canada Partners. These government jurisdictions need to realized funding program is not enough to impact population intervention strategies without an evidence that it is effective and has impacts on target populations. They need to also acknowledge the essence and importance of program evaluation in ensuring provision of funds and resources invested in programs are managed efficiently. Also, how it can give room for program improvement and to ensure the provision of high quality program. Additionally, FNHA as the primary program coordinator should be responsible for coordinating the evaluation project and mobilize communities to work towards evaluating their programs.

Aboriginal communities should recognize why it is important to evaluate such program as BCFNHS. An evaluation serves to benefit them in many ways. First, this will provide evidence that can be used in proposals to secure better funds for the program. Second, areas that need improvement can be identified leading to an improved version of the program. Third, it will contribute to the empowerment of staff and community members as they partake in the evaluation process. Communities can also advocate for the need for BCFNHS program evaluation

Evaluation Framework

The choice and selection of methods and approaches in the process of public health program evaluation are largely dependent on various factors, thus, the steps involved in the process of program evaluation occur differently in different programs (Chen, 2005). Nevertheless, based on the findings from this analysis, this paper recommends methods and approaches that seemed best fit for the evaluation of the BCFNHS program. This paper recommends the use of regional evaluation framework as a preliminary evaluation model of BCFNHS programs. This will provide overall information on the effectiveness and impacts of BCFNHS as a regional program and serve as a guide for the development of subsequent community-based frameworks.

Focusing on the evaluation steps, firstly, the use of the participatory action model as the evaluation approach in the BCFNHS is highly recommended because it ensures community involvement and engagement, acknowledges ethical considerations of OCAP principles, encourages staff and community empowerment and encourages cooperation of the participants in the uptake of research tools. Also, it helps the development of evaluation questions and a detailed logic model that is based on the six program components. Secondly, since the BCFNHS program has been in existence for over two decades and no longer in its implementation stage, it is more logical to adopt the outcome evaluation. With the use of this approach, the assessment of the effectiveness of the program and the intended and unintended effects on the program can be explored.

Thirdly, this paper also recommends the utilization of the quasi-experimental design (head start children in selected sites can be compared with their Indigenous aged-matched peers) with a longitudinal and/or retrospective pretest/posttest design framework. Selection of program sites can be based on their availability of complete baseline data (National Process Survey and an impact baseline) was collected in 2000-01 as part of the national evaluation process developed for AHSOR to allow longitudinal framework design. The comparison groups should consist of Indigenous children who have the same identity, who are of the same age and not attending head start or other child development programs. This will not only improve the

validity and reliability of the results but also make the method/design more ethical and culturally relevant.

Fourthly, a mix method data collection approach should be adopted to allow a quantitative assessment of school readiness and achievement, language and literacy skills and social skills of children, as well as a qualitative method to afford deeper expressions of children and parents experiences of the program. This way results can be confirmed and attributed to program effects or impacts. In terms of outcome measures, selecting measures should be based on those used in baseline data and/or other preexisting secondary tools such as school records review as used in the LRSHS evaluation.

It is very crucial to note that this analysis and conclusions made from it are based on the common western knowledge and views. It is therefore subject to review and redefinition of terms and tools, and selection of the most appropriate approach or method should be consistent with Indigenous worldviews and practices.

Conclusion

In conclusion, the need for the program evaluation of the 20 years BCFNHS program as a subset of ASHOR program cannot be overemphasized. Although majority of the key responsibility lies on the governmental partners, the roles of the community members are also important. Beginning with advocating for the program evaluation and actively partaking in the evaluation process itself. This analysis has provided elementary information about how this process can be explored and with the acceptance and cooperation among stakeholders the BCFNHS evaluation project can be actualized.

References

- Adelson, N. (2005). The embodiment of inequity: Health disparities in Aboriginal Canada. *Canadian Journal of Public Health/Revue Canadienne de Sante'e Publique*, *S45–S61*.
- Anderson, L. M., Shinn, C., Fullilove, M. T., Scrimshaw, S. C., Fielding, J. E., Normand, J., & Carande-Kulis, V. G. (2003). The effectiveness of early childhood development programs. *American Journal of Preventive Medicine*, *24*(3), 32–46. [https://doi.org/10.1016/S0749-3797\(02\)00655-4](https://doi.org/10.1016/S0749-3797(02)00655-4)
- Ball, J. (2005). Early childhood care and development programs as hook and hub for inter-sectoral service delivery in First Nations communities. *Journal of Aboriginal Health*, *1*(2), 36–50.
- Ball, J. (2008). Promoting equity and dignity for Aboriginal children in Canada. *Canadian Research Index*.
- Ball, J. (2014, December). Improving Reach of ECE to First Nations, Inuit, Metis Children.pdf. Retrieved February 16, 2017, from <http://www.ecdip.org/docs/pdf/Improving%20Reach%20of%20ECE%20to%20First%20Nations,%20Inuit,%20Metis%20Children.pdf>
- Barnett, W. S. (1995). Long-Term Effects of Early Childhood Programs on Cognitive and School Outcomes. *The Future of Children*, *5*(3), 25–50.
- BC First Nations Head Start. (2007a, 2014). Delivery Models | Headstart. Retrieved February 23, 2017, from <http://www.bcfnhs.org/content/delivery-models>
- BC First Nations Head Start. (2007b, 2014). Home | Headstart. Retrieved February 23, 2017, from <http://www.bcfnhs.org/>
- Belsky, J., Vandell, D. L., Burchinal, M., Clarke-Stewart, K. A., McCartney, K., & Owen, M. T. (2007). Are There Long-Term Effects of Early Child Care? *Child Development*, *78*(2), 681–701.
- Better Evaluation. (n.d.). Approaches | Better Evaluation. Retrieved March 13, 2017, from <http://www.betterevaluation.org/en/approaches>
- Blackman, J. A. (2002). Early intervention: A global perspective. *Infants & Young Children*, *15*(2), 11–19.
- Burger, K. (2010). How does early childhood care and education affect cognitive development? An international review of the effects of early interventions for children from different social backgrounds. *Early Childhood Research Quarterly*, *25*(2), 140–165. <https://doi.org/10.1016/j.ecresq.2009.11.001>

- Cass, A. (2004). Health outcomes in Aboriginal populations. *CMAJ : Canadian Medical Association Journal = Journal de l'Association Medicale Canadienne*, 171(6), 597–598.
<https://doi.org/10.1503/cmaj.1041059>
- Chen, H.-T. (2005). *Practical program evaluation: Assessing and improving planning, implementation, and effectiveness*. Sage. Retrieved from
<https://books.google.ca/books?hl=en&lr=&id=onxLqI7MajwC&oi=fnd&pg=PR9&dq=Practical+Program+Evaluation:+Assessing+and+Improving+Planning+...+By+Huey-tsyh+Chen&ots=KKekncKoK6&sig=EFRe2BndYOPQJXNHCEiC3nMuhyQ>
- Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications. Retrieved from
<https://books.google.ca/books?hl=en&lr=&id=EbogAQAAQBAJ&oi=fnd&pg=PP1&dq=john+w.+creswell+qualitative,+quantitative+and+mix+methods+approaches&ots=caiTrWPCy8&sig=Vtr4TFeEhEFIL9P9kuiPKmCCxNE>
- Currie, J. (2001). Early childhood education programs. *The Journal of Economic Perspectives*, 15(2), 213–238.
- Deming, D. (2007). *Early Childhood Intervention and Life-Cycle Skill Development*. Working Paper, Harvard University. Retrieved from
http://isites.harvard.edu/fs/docs/icb.topic255713.files/2_25_Deming.pdf
- DeRiviere, L. (2016, March). Little Red Spirit, Aboriginal Head Start Program. Retrieved February 27, 2017, from <http://indspire.ca/wp-content/uploads/2016/04/indspire-nurturing-capacity-little-red-spirit-final.pdf>
- George, A., Jin, A., Brusson, M., & Lalonde, C. E. (2015, January 21). Is the injury gap closing between the Aboriginal and general populations of British Columbia? Retrieved February 3, 2017, from <http://www.statcan.gc.ca/pub/82-003-x/2015001/article/14131-eng.htm>
- Gionet, L. (2009, May 13). First Nations people: Selected findings of the 2006 Census. Retrieved February 3, 2017, from <http://www.statcan.gc.ca/pub/11-008-x/2009001/article/10864-eng.htm>
- Gracey, M., & King, M. (2009). Indigenous health part 1: determinants and disease patterns. *The Lancet*, 374(9683), 65–75.
- Greenwood, M. (2006). Children Are a Gift to Us: Aboriginal-Specific Early Childhood Programs and Services in Canada. *Canadian Journal of Native Education; Edmonton*, 29(1), 12–28,146.

- Greenwood, M., de Leeuw, S., & Fraser, T. N. (2007). Aboriginal children and early childhood development and education in Canada: Linking the past and the present to the future. *Canadian Journal of Native Education*, 30(1), 5.
- Hare, J., Anderson, J., & others. (2010). Transitions to early childhood education and care for indigenous children and families in Canada: Historical and social realities. *Australasian Journal of Early Childhood*, 35(2), 19.
- Harris, M. J. (2016). *Evaluating public and community health programs*. John Wiley & Sons. Retrieved from <https://books.google.ca/books?hl=en&lr=&id=OME0DQAAQBAJ&oi=fnd&pg=PR13&dq=Evaluating+public+and+community+health+programs&ots=b9p3sUSllg&sig=Wd3xvGg5BXGnkUO99tTG NuituEM>
- Health Canada. (2003). Annual Report 2000-2001. Aboriginal Head Start Program. Retrieved February 20, 2017, from <http://publications.gc.ca/collections/Collection/H33-1-2001E.pdf>
- Health Canada, G. of C. (2005, March 4). Aboriginal Head Start on Reserve - First Nations and Inuit Health Canada [program service description]. Retrieved February 1, 2017, from http://www.hc-sc.gc.ca/fniah-spnia/famil/develop/ahsor-papa_intro-eng.php
- Jamieson, K. (2007). *Environmental scan of Aboriginal early childhood development programs in BC: The winds of change*. BC Aboriginal Child Care Society. Retrieved from http://www.acc-society.bc.ca/files_new/pdf_documents/ACCSscan28feb07.pdf
- Kelly-Scott, K., & Arriagada, P. (2016, March 14). Aboriginal Peoples: Fact Sheet for British Columbia. Retrieved February 3, 2017, from <http://www.statcan.gc.ca/pub/89-656-x/89-656-x2016011-eng.htm>
- Kemp, L., Harris, E., McMahon, C., Matthey, S., Vimpani, G., Anderson, T., ... Zapart, S. (2011). Child and family outcomes of a long-term nurse home visitation programme: a randomised controlled trial. *Archives of Disease in Childhood*, 96(6), 533–540. <https://doi.org/10.1136/adc.2010.196279>
- King, M., Smith, A., & Gracey, M. (2009). Indigenous health part 2: the underlying causes of the health gap. *The Lancet*, 374(9683), 76–85.
- Lee, V. E., Brooks-Gunn, J., Schnur, E., & Liaw, F.-R. (1990). Are Head Start effects sustained? A longitudinal follow-up comparison of disadvantaged children attending Head Start, no preschool, and other preschool programs. *Child Development*, 61(2), 495–507.

- Little Drum Consulting. (2012). Aboriginal Supported Child Development Program Evaluation - ASCDReviewReportJan12-2012.pdf. Retrieved February 27, 2017, from <http://ascdp.bc.ca/wp/wp-content/uploads/2013/07/ASCDReviewReportJan12-2012.pdf#page=1>
- Love, J. M., Kisker, E. E., Ross, C., Raikes, H., Constantine, J., Boller, K., ... others. (2005). The effectiveness of early head start for 3-year-old children and their parents: lessons for policy and programs. *Developmental Psychology*, 41(6), 885.
- Masten, A. S., Gewirtz, A. H., & Sapienza, J. K. (2006). Resilience in development: The importance of early childhood. *Encyclopedia on Early Childhood Development*, 1–6.
- McKey, R. H., & others. (1985). The Impact of Head Start on Children, Families and Communities. Final Report of the Head Start Evaluation, Synthesis and Utilization Project. Retrieved from <http://eric.ed.gov/?id=ED263984>
- Mertens, D. M. (2014). *Research and Evaluation in Education and Psychology: Integrating Diversity With Quantitative, Qualitative, and Mixed Methods*. SAGE Publications.
- National Collaborating Centre for Aboriginal Health. (2011). Honouring Our Children (English - Web).pdf. Retrieved February 2, 2017, from [http://www.nccah-ccnsa.ca/docs/fact%20sheets/child%20and%20youth/Honouring%20Our%20Children%20\(English%20-%20Web\).pdf](http://www.nccah-ccnsa.ca/docs/fact%20sheets/child%20and%20youth/Honouring%20Our%20Children%20(English%20-%20Web).pdf)
- National Collaborating Centre for Aboriginal Health. (2013). An Overview of Aboriginal Health in Canada. Retrieved February 3, 2017, from http://www.nccah-ccnsa.ca/Publications/Lists/Publications/Attachments/101/abororiginal_health_web.pdf
- Nguyen, M. (2011). Closing the education gap: A case for Aboriginal early childhood education in Canada: A look at the Aboriginal Head Start program. *Canadian Journal of Education*, 34(3), 229–248.
- Northwest Territories Aboriginal Head Start Program. (2008). Aboriginal Head Start Making a Difference in the Northwest Territories. Longitudinal Evaluation of Aboriginal Head Start in the Northwest Territories: 2000 to 2008. Retrieved February 27, 2017, from <http://www.nwtheadstart.org/Portals/0/Media/Documents/NWTAHS%20Nov%2015%20Making%20a%20Difference.pdf#page=5>
- Partridge, C. (2010). Residential Schools: The Intergenerational Impacts on Aboriginal Peoples. *NISHNAABE KINOOMAADWIN NAADMAADWIN*, 33.

- Phillips, D. A., Shonkoff, J. P., & others. (2000). *From neurons to neighborhoods: The science of early childhood development*. National Academies Press. Retrieved from <https://books.google.ca/books?hl=en&lr=&id=oZQtR7WIBKgC&oi=fnd&pg=PA1&dq=DA+Phillips,+JP+Shonkoff+From+neurons+to+neighborhoods:+The+science+of+early+childhood+developm ent&ots=qGa7CbUpXV&sig=eJl-RszcotgcB6WWjpCHqAd5ao>
- Posavac, E. (2015). *Program Evaluation: Methods and Case Studies*. Routledge.
- Preston, J. P. (2008). Enhancing Aboriginal child wellness: The potential of early learning programs. *First Nations Perspectives: The Journal of Manitoba First Nations*, 1(1), 98–120.
- Preston, J. P., Cottrell, M., Pelletier, T. R., & Pearce, J. V. (2012). Aboriginal early childhood education in Canada: Issues of context. *Journal of Early Childhood Research*, 10(1), 3–18.
- Public Health Agency of Canada, G. of C. (2012a, August 14). 2. Background and context - Evaluation of the Aboriginal Head Start in Urban and Northern Communities Program at the Public Health Agency of Canada - Public Health Agency of Canada. Retrieved February 1, 2017, from http://www.phac-aspc.gc.ca/about_apropos/evaluation/reports-rapports/2011-2012/ahsunc-papacun/bkg-info-eng.php#Toc320862131
- Public Health Agency of Canada, G. of C. (2012b, August 14). 3. Findings - Evaluation of the Aboriginal Head Start in Urban and Northern Communities Program at the Public Health Agency of Canada - Public Health Agency of Canada. Retrieved February 21, 2017, from http://www.phac-aspc.gc.ca/about_apropos/evaluation/reports-rapports/2011-2012/ahsunc-papacun/find-const-eng.php#findings
- Royal Commission on Aboriginal Peoples. (1996). Report of the Royal Commission on Aboriginal Peoples, Volume 3: Gathering strength. Ottawa, ON: Minister of Supply and Services Canada. Retrieved February 15, 2017, from <http://www.peopleforeducation.ca/wp-content/uploads/2011/11/RCAP-vol-3-Gathering-Strength-Education2.pdf>
- Schmitz, C. C., & Parsons, B. A. (1999, October 20). EVERYTHING YOU WANTED TO KNOW ABOUT LOGIC MODELS BUT WERE AFRAID TO ASK. Retrieved March 8, 2017, from http://insites.org/insites_archive/documents/logmod.pdf
- Schnarch, B. (2004). Ownership, control, access, and possession (OCAP) or self-determination applied to research: A critical analysis of contemporary First Nations research and some options for First Nations communities. *International Journal of Indigenous Health*, 1(1), 80.

- Schroth, R. J., Harrison, R. L., & Moffatt, M. E. (2009). Oral health of indigenous children and the influence of early childhood caries on childhood health and well-being. *Pediatric Clinics of North America*, 56(6), 1481–1499.
- Schweinhart, L. J. (2013). Long-term follow-up of a preschool experiment. *Journal of Experimental Criminology*, 9(4), 389–409. <https://doi.org/10.1007/s11292-013-9190-3>
- Slee, P., Skrzypiec, G., Dix, K., Murray-Harvey, R., & Askeil-Williams, H. (2012, September). KidsMatter Early Childhood Evaluation in Services with High Proportions of Aboriginal and Torres Strait Islander Children. Retrieved February 27, 2017, from <https://www.beyondblue.org.au/docs/default-source/research-project-files/bw0138-report---kidsmatter-early-childhood-evaluation-aboriginal-and-torres-strait-islander-children.pdf?sfvrsn=4>
- Statistics Canada, G. of C. (2015, December 24). Aboriginal Statistics at a Glance. Retrieved February 3, 2017, from <http://www5.statcan.gc.ca/olc-cel/olc.action?ObjId=89-645-X2015001&ObjType=46&lang=en>
- Sterling Consulting. (2004, May). Handbook: Models of Delivery & Best Practices. Retrieved February 23, 2017, from http://www.bcfnhs.org/sites/all/files/docs/P_BCFNHS_Handbook_of_Models_and_Best_Practices_2004.pdf
- Terbasket, K., & Greenwood, M. (2007). British Columbia First Nations Head Start Program: An Overview of Policy Development 1998-2007. *Canadian Journal of Native Education*, 30(1), 75.
- Turner, A., Crompton, S., & Langlois, S. (2011). Aboriginal peoples in Canada: First Nations people, Métis and Inuit, (Journal Article).
- Vogel, C., Brooks-Gunn, J., Martin, A., & Klute, M. M. (2013). III. IMPACTS OF EARLY HEAD START PARTICIPATION ON CHILD AND PARENT OUTCOMES AT AGES 2, 3, AND 5. *Monographs of the Society for Research in Child Development*, 78(1), 36–63. <https://doi.org/10.1111/j.1540-5834.2012.00702.x>
- Wasik, B. H., Ramey, C. T., Bryant, D. M., & Sparling, J. J. (1990). A Longitudinal Study of Two Early Intervention Strategies: Project CARE. *Child Development*, 61(6), 1682–1696. <https://doi.org/10.1111/j.1467-8624.1990.tb03559.x>
- Weikart, D. P. (1989). *Quality Preschool Programs: A Long-Term Social Investment. Occasional Paper Number 5*. ERIC. Retrieved from <http://eric.ed.gov/?id=ED312033>

Zigler, E., & Valentine, J. (1979). Project Head Start: A Legacy of the War on Poverty. Retrieved from <http://eric.ed.gov/?id=ED183266>

Zukoski, A. (2002, April). Community-based public health policy and practice. Retrieved March 8, 2017, from https://depts.washington.edu/ccph/pdf_files/Evaluation.pdf

Appendix I. Evaluation Questions

- i. Evaluation Questions for NWTAHS evaluation (Northwest Territories Aboriginal Head Start Program, 2008)
 1. What skills and knowledge do NWTAHS children have years after they have attended the program? (longitudinal)
 - a. Do these skills differ from their age-matched peers (cross-sectional)?
 2. How do the children's skills vary across skill and literacy levels in verbal, reading/writing, math and social skills?
 3. Are there differences in achievements among NWTAHS children who enter the program with lower or higher skills and knowledge (longitudinal and cross-sectional)?
 4. Do the achievements of the AHSUNC children differ among the two cohort groups studied, that is the 2000-2001 and the 2003-2004 groups of AHSUNC graduates in the NWT?
 5. Are there differences in the patterns of skills and achievements for AHSUNC graduates based on attending rural or urban AHSUNC programs

- ii. Evaluation Questions for KMEC evaluation (Slee et al., 2012)
 1. How are services responding to the KMEC Model?
 2. What are the gaps in the KMEC Model for services with a high proportion of Aboriginal and Torres Strait Islander people?
 3. What adaptations the services were undertaking?
 4. What is the suitability of the KMEC professional learning model for services with high Aboriginal and Torres Strait Islander populations?

Appendix II. Logic Models

i. Logic Model: Little Red Spirit Head Start Program Evaluation (DeRiviere, 2016)

| | Planned Work |
|-------------------------------------|---|
| Inputs | <p>Staff resources (a primarily Indigenous staff of 10 employees): 1 Executive Director, 4 Early Childhood Educators (ECEs), 1 educational assistant/aide, 1 cultural adviser; 1 bus driver, 1 family community outreach coordinator, 1 parent leadership training coordinator. Other human resources include janitorial/maintenance staff at the Broadway and Dufferin locations, support staff at the sponsoring agency (Ma Mawi), parent volunteers, parent board members, and advisory committee members. In addition, the agency uses the services of 10 other volunteers.</p> <p>Other inputs include the facilities at the Broadway Neighbourhood Centre and Dufferin School satellite location, including gym facilities and playground equipment; educational supplies required to deliver programming; food and kitchen equipment and supplies; laundry equipment and supplies; cleaning supplies; a van for transporting families to and from the Broadway location; school infrastructure at the Dufferin School program location; funding from the Public Health Agency of Canada.</p> |
| Strategies/ major activities | <p>Program Components:</p> <p>Educational program: The program emphasizes early childhood development with a focus on nurturing the child’s physical, spiritual, emotional, intellectual, and social development. Thus, staff in the preschool program focus on enhancing children’s reading, writing, and numeracy skills, gross and fine motor skills, language skills, cooking skills, group-based games, phonetics, and puzzles. The staff also support children in developing social skills such as playing well with others, sharing, good manners, and expressing needs and feelings in healthy ways.</p> <p>Culture and language: Staff in the preschool program teach the Aboriginal languages of Ojibway and Cree to the children; the physical environment embodies culture; a cultural adviser works on staff, and Elders are also invited to</p> |

participate in programming (e.g. to lead traditional healing circles or ceremonies); children smudge on a daily basis, participate in traditional dances, storytelling, traditional songs/singing, arts and crafts; children's and parents' knowledge of the Medicine Wheel tool and Seven Sacred Teachings is enhanced; traditional meals and snacks are prepared in the kitchen. Indigenous cultural values are applied to all aspects of Little Red Spirit programming and governance.

Parent and family involvement: Parents act as supervisors and participants during field trips and outings such as sweats and pow-wow ceremonies; parents rotate as bus monitors, contribute to classroom activities, participate on the parent advisory committee or as a member of the Board of Directors, and assist with program policy development; parents do fundraising, clean-up activities, and food and snack preparation. The staff provide parents with learning opportunities and personal development through regular workshops and training sessions.

Health promotion: parents are provided with information on immunizations and lice control; parents are provided with opportunities to participate in diabetes education, non-violent crisis intervention, and the Nobody's Perfect parenting workshops; Parents are also encouraged to improve their health and well-being through workshops on healthy cooking and eating, self-care, and fitness classes such as yoga and Martial Arts. The program staff also encourages/organizes physical activities for families.

Good dental hygiene is encouraged in the program, and an oral health professional (i.e. a dental assistant from the Healthy Smiles program) comes to the program every 3 months to conduct dental cleanings, fluoride treatments, and examinations. Program staff support families by connecting them to other resources such as vision and/or hearing assessments for their child.

Nutrition: The Aboriginal Food Guide and Canada Good Guide are used to help parents understand the nutritional needs of their children, including the effects of nutrition on a child's ability to learn; children participate in cooking and baking activities; traditional foods and snacks are prepared in the centre's kitchen; staff and parents participate in group food shopping trips and budgeting exercises (e.g. buying healthy foods

on a budget). Little Red Spirit supports families to become members of the 'Good Food Club', in which they purchase local food at discount prices (mostly fresh fruit and vegetables).

Social support: Parents'/guardians' awareness is raised regarding community resources such as residential housing

| | |
|----------------------------|--|
| | supports; availability of income assistance and other financial supports; staff assist in making referrals when the need arises. Informal supports are offered during the summer months such as trips to the beach, home visits, and other outings. |
| | Intended Results |
| Outputs | <p>Immediate Countable Results</p> <p>Enrolment: 38 children registered at the Broadway location (Dufferin location: 19 children); attendance rate; number of program departures; number of graduations; number of home visits; number of children on the wait list for admission; number of agency contacts in the community (e.g. income assistance, child and family services, the sponsoring agency Ma Mawi, etc.); number of staff training sessions; number of volunteer hours, board meetings, and parent advisory committee meetings.</p> <p>Parents become full participants in the school by volunteering their time, attending workshops, and community events (e.g. pow wow ceremonies and others): number of parent contacts; number of hours and type of parent volunteering; number of learning opportunities provided to parents (workshops, training sessions, etc.) and number of participants.</p> |
| | Outcomes (related to the objectives/mission of the program and six program components) |
| Short-term outcomes | <p>Short-term (2-3 years when the child is attending Little Red Spirit)</p> <p>Education: children learn numeracy, reading, writing skills to prepare them for kindergarten and/or Grade1; children improve their fine and gross motor skills; children become confident learners; children learn independence; children develop a positive outlook about school and learning new skills; children have strong social development indicators (e.g. plays fair, takes turns, is less shy, follows teacher's instructions, expresses needs and feelings in positive ways).</p> <p>Culture and language: children gain knowledge of (and speak) words in their traditional language (Ojibway or Cree) and gain awareness of their cultural traditions; children internalize Indigenous culture and demonstrate evidence of</p> |

| | |
|--|--|
| | <p>pride in their identity; family is engaged with the Indigenous community.</p> <p>Parental and family involvement: parents become more involved in the program; parents interact with their child more frequently; the program helps some parents to maintain employment while their children are being cared for in a safe and caring environment. By participating in program governance (parent advisory committee and board of directors), parents also build self-confidence and assertiveness skills.</p> <p>Health promotion and nutrition: children internalize good health habits such as brushing their teeth regularly, washing their hands, and a willing to eat healthy foods; parents have more knowledge of parenting issues and awareness of their child’s nutritional needs; parents increase their awareness about family budgeting and the benefits of cooking nutritional meals, child health issues such as vision and dental care for their children, as well as community resources that are made available to them; parents practice their cooking skills, and the family eats healthy meals more frequently.</p> <p>Social support: parents have expanded their social network and emotional support system; families make use of community resources; families participate in summer outings and field trips, as well as community events that involve other Indigenous families.</p> |
| <p>Intermediate term outcomes</p> | <p>Intermediate term (3 years and longer, after the child leaves the program)</p> <p>The children are ready for school insofar as their numeracy, reading, writing and language skills are adequate to meet requirements of public school; the child is a confident learner, socially adept, physically active, and has internalized cultural pride/is proud of his or her identity; the entire family has a sense of cultural pride; the family has a positive attitude about healthy eating and healthy living, and actively incorporates these ideals into their daily lives; the program contributes to positive outcomes for parents such as improved parenting capacity, as they continue to be their children’s first teachers and to be involved in their children’s education; parents are empowered to pursue their own personal goals including education and employment; improved income self-sufficiency of families; families experience positive outcomes with government agencies such as Child and Family Services; families have stable housing arrangements; there are positive spillover effects in the community, as more families become aware of and wish to have their children participate in the Little Red Spirit program.</p> |
| <p>Ultimate goals or impact</p> | <p>Long-term (the child’s educational and life outcomes)</p> <p>Throughout their years of schooling, Little Red Spirit children’s math, reading, writing, language, and social skills</p> |

| | |
|--|--|
| | <p>exceed those of children who did not attend program; the program generates resilient children that can advocate on their own behalf, and children who have a high probability of graduating from elementary school at or above grade level; positive spillover effects are passed on to siblings and other family members.</p> <p>Little Red Spirit participants graduate from high school and have opportunities to pursue post-secondary education; children pursue a healthy lifestyle that includes a strong cultural component.</p> <p>Social impacts: the child is a contributing member to society; Little Red Spirit has helped to create strong youth leadership in the Winnipeg Indigenous community; community capacity/social capital expands in high-poverty areas of Winnipeg; the Little Red Spirit program becomes the hub of the local community and inner-city schools.</p> |
|--|--|

ii. **Logic Model: NWT AHS (Northwest Territories Aboriginal Head Start Program, 2008)**

