The Impact of the Read To Me! Program in the Emergency Department of the IWK Health Centre on Family Literacy Practices

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Dedication

I dedicate this to my daughters Jasmine and Vanessa to serve as an inspiration and a reminder that learning and education are life long processes.

Abstract

The purpose of this study was to evaluate the Read to Me! program in the emergency department of a pediatric hospital to determine if the intervention resulted in a change in family literacy practices. It was conducted at the IWK Health Centre in Halifax, Nova Scotia. The program is designed to support the mandate of the Read to Me! Nova Scotia Family Literacy Program aimed at helping families in Nova Scotia enrich their children's early years with books and reading. Participants were parents who presented at the emergency department of the IWK Health Centre with a child six years of age or younger, and emergency department staff. Participants were interviewed for a period of twenty months at which time 485 interviews had been conducted. One hundred fourteen in the intervention group were interviewed in person prior to the intervention. Families in the intervention group had their child read to by a volunteer reader, were given a handout on tips for reading to young children and a list of age appropriate books. They were also given the gift of a book to take home. One hundred fourteen participants in the control group were interviewed in person when no volunteer reader was present. One hundred participants in the intervention group and 103 in the control group were interviewed by telephone approximately six weeks after the initial interview. Parents were asked a number of questions to determine if there were changes in family literacy practices. Twenty-seven staff members were interviewed at the beginning of the program and at the end of the pilot study to identify the impact of the program on their working environment

and on perceived wait times. Intervention provided to parents and their children through the Read to Me! Program was predicted to increase parental knowledge and attitudes about the importance of reading to young children. The study found an increase in the number of families with library cards, an increased use of libraries, an increase in the number of times children visited the library and were observed looking at books. The number of children in the intervention group who had received books since taking part in the Read to Me! program was significant. Reading was selected as the indoor activity parents enjoy doing most with their child in both groups. There was no increase in the number of times books were chosen as a favourite activity from initial to subsequent interview for the intervention and control groups. However, when data from the control group were compared to data from the intervention group, parents in both groups reported that reading and looking at books was the activity that they enjoyed most with their child. There were more families in the intervention group reading to their children almost daily or at least weekly; however, there was not a significant difference between the intervention and control groups. Comparison of data collected from staff revealed that there was a significant reduction in inquiries from parents asking how long before their child would be seen by a doctor. Results of this study provide support for continuation of the Read to Me! program.

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The Impact of the Read to Me! Program in the Emergency Department of the IWK Health Centre on Family Literacy Practices

The amount of reading a child is exposed to and access to books from a young age can play an important role in literacy outcomes for children. Evidence to support this belief has often focused on the time that parents and others spend reading to their children and the number of children's books in the home. This study was designed to evaluate a pilot program operating in the emergency department of a pediatric hospital where volunteers read to children while they await medical attention. This program is designed to support the mandate of the Read to Me! Nova Scotia Family Literacy Program, aimed at helping families in Nova Scotia enrich their children's early years with books and reading. Face to face interviews were conducted on the day that the intervention took place and a follow-up interview was carried out six to eight weeks later to determine if the program increased literacy activities in the home. As well, the effect of such a program on staff working in the emergency department was evaluated.

A decade ago, reading programs for young children were started in the United States and carried out in pediatric clinics. Needlman, Klass & Zuckerman (2002) describe the purpose of these programs as being to encourage early literacy and the acquisition of books in all homes. To support these programs, volunteer readers would bring books into clinic waiting rooms. As the programs became established, pediatricians and nurse-practitioners began to offer advice to parents about the benefits of having books accessible in the home. The importance of reading aloud to children from a very early age was also stressed, often as early as from birth. Later, these medical visits provided an

opportunity for every child between the ages of six months and five years to take home a new book after each check-up. These programs reinforced for parents the message about the importance of books for young children.

Needlman, et al. (2002) point out that there are three important steps to reading interventions of this type. The first is having community volunteers modelling developmentally appropriate techniques of reading aloud to children. The second consists of information given to the parent or caregiver emphasizing the importance of reading aloud to children. The third step is to give a book to the child at each visit so that families have the necessary tools to carry out the program.

In a review article on pediatric interventions that support reading aloud to children in medical settings Needlman & Silverstein (2004) reviewed 12 published studies that evaluated the Reach Out and Read (ROR) model of intervention. There is variation in how individual ROR programs operate; not all programs carry out the three steps as outlined in Needlman et al. (2002). The model, developed in 1989, currently operates in more than 2000 clinics and offices throughout the United States. It is important to note that the study design and methodology used in Needlman & Silverstein's 12 studies is similar to that used to evaluate the Read to Me! program. These studies relied on self-reported parent attitudes and actions and in some cases observations of child language development. Parents were asked questions relating to parent-child literacy activities. Many of these studies were carried out with an intervention and control group, both pre- and post-intervention.

Jones et al. (2000) report that mother-child pairs who received a book and guidance were twice as likely to enjoy reading together as those who received guidance on reading only. They also found that the distribution of books and guidance from a physician improved the rapport between parents and the physician. Sanders, Gershon, Huffman, & Mendoza (2000) reported that parents who received just one book from the physician were more likely to report sharing books with their child, than those not exposed to such a program.

In 1994, the International Adult Literacy Survey (IALS) examined individuals between the ages of 16 and 65 to determine their ability to use printed and written information. The survey also assessed their ability to function in society, to achieve their personal goals, and to develop to their full potential. The study measured skills in several countries and several languages. As a result of this study, it was determined that in Atlantic Canada just over one in five adults had difficulty using written material, such as brochures, reports and news releases. The study revealed that just over one in four could use clear written materials and emphasized the social and economic impacts of various levels of literacy.

Reading the Future: A Portrait of Literacy in Canada is a study based on the International Adult Literacy Survey (2002). The report describes results on three scales (prose, document and qualitative literacy) along a continuum of skills from level 1 being the lowest to level 4/5 being the highest. As demonstrated in the report, the Canadian literacy profile shows that there are large numbers of adult Canadians who have low-level literacy skills. This impacts on their participation in society and in the economy. The

report states that about 22 percent of adult Canadians 16 years and over are in the level 1 category and have the lowest level of literacy. Individuals at this level are likely to identify themselves as having difficulty reading and have serious difficulty handling printed materials. Approximately 24-26 percent are at level 2, the second lowest literacy level. This group is able to read, but not well, and can understand less complex material. Level 3 is considered to be the minimum desirable threshold. Many occupations require a minimum of level 3 or higher skills and 30 percent of adults are at this level. Those at levels 4 and 5 demonstrate higher literacy skills and are able to solve complex problems. Approximately 16 percent of adults are at level 4 and the remaining 4 percent are at level 5.

Moore (2000) reports that just over one in four Canadian adults is able to fill out documents such as job applications, payroll forms, tables and schedules if these documents are simple and clearly laid out. Approximately one in three individuals have serious difficulty with this type of information. Moore also concludes that although, generally speaking, adults with university degrees have the higher skill levels there is not necessarily a relationship between educational level and reading level. He points out that there is a relationship between skill level and industrial growth, explaining that those with higher reading skills are usually employed by high growth industries. Individuals with lower skill levels are more likely to be employed by industries experiencing slower growth. Those with the lowest reading skill level are three times more likely to be unemployed.

Needlman, Fried, Morley, Taylor, & Zuckerman (1991) report that the literacy rate of children improves if their parents read to them. Pediatric hospitals or clinics distributing developmentally appropriate books to families can help facilitate this process. Needlman et al. point out that early interventions, which expose children to literacy, can improve the chances of reading success even for children facing other obstacles such as living in poverty.

Commitment to family literacy continues to grow. Increased awareness of the potential for using family members as educators has led to growth in the number of reading programs offered to families. The intent of these programs is to broaden access to education and to improve family skills in reading, writing, and communication (Neuman, Caperelli, & Kee, 1998). The term literacy will be used to refer to all reading activities including looking at, reading, handling and playing with books. Parental involvement programs, such as the Read to Me! program, are designed to work with parents to give them the tools they need to enrich their baby's life with books and reading.

Literacy statistics cited by a government task force suggest that approximately 50 percent of adult Nova Scotians have low literacy (Moore, 2000). Moore also states that future competitiveness of Canadians depends on the ability to raise literacy and learning levels in our society. Individuals who have less formal education tend to have lower incomes. Poverty is a serious problem for these families and an unfortunate result is the increased tendency for children of these families to drop out of school at an early age (Ross, Shillington, Lochhead, 1994).

The benefits of literacy are well documented, as are the risks associated with low literacy. The literature in this area will be reviewed, with particular emphasis on risk factors for low literacy, brain development and reading, early literacy and pediatrics, reading programs, emergency departments and the benefits of giving books to children.

Risk Factors Associated with Low Literacy

A study of low income families completed in 1991 revealed that children aged 16 and 17 living in poor families were twice as likely to drop out of school than their counterparts who were not living in poverty (Ross et al., 1994). High, LaGasse, Becker, Ahlgren, & Gardner (2000) report that children who grow up in poverty, or are from low-income families, tend to be at greater risk for reading failure. Reading failure in school can be frustrating for students and can lead to low self-esteem. Reading failure and low self-esteem may also contribute to higher rates of school dropout, delinquency, teen pregnancy and in some cases substance abuse (High, Hopmann, LaGasse, & Linn, 1998).

Atkinson, Parks, Cooley & Sarkis (2002) point out that, in the United States, children who live near or below the poverty line show lower average reading scores than their peers. They suggest that as the educational level of mothers increases so does the amount of time spent reading aloud to their children. These mothers also tend to have more books and reading materials in the home compared with mothers who have not finished high school. It also appears that parents living in poverty read to their children less than those not living in poverty. As Wade and Moore (1998) demonstrated in the Bookstart research, the interactions between parents and children and the use of books are

important for educational development. They also determined that the sharing of books helps lay the foundation for later literacy experiences.

Brain Development and Reading

"Incorporating literacy into the daily routine with very small children may have significant impact in the first years of life during this time of rapid brain growth" (Atkinson et al., 2002, p.11). New brain imaging technologies have helped researchers gain insight into how reading, storytelling, singing and everyday exchanges promote intellectual growth and social and emotional development (Chandler, 1997). This research has influenced pediatricians to prescribe reading to infants. The neuroscience associated with brain development is complicated; however, the important point to be made is that infants' brains develop at a rapid rate during the early years. Therefore, the first years of life are important ones for the child's development. Learning to read and write starts early in life, and as the research demonstrates, young children learn to speak, read and write concurrently (Klass, Needlman & Zuckerman, 1999). The importance of early stimulation for cognitive development has been well documented.

Early Literacy

The term early literacy, or emergent literacy, implies that literacy is a continuous developmental process that involves listening, speaking, reading and writing. This process starts before formal instruction in reading and develops in everyday settings (Klass, Needlman & Zuckerman, 1999). Lipps & Yiptong-Avila (1999) report that reading to children has a positive impact on their academic skills. They point out that young children aged two to three years old who are read to several times a day do better

in kindergarten when they are four to five years old than children whose families read to them only a few times a week or less frequently. Children who are read to daily are more likely to be described by their teachers as being near the top of their class in learning abilities, in communication skills, in performing mathematical tasks and in receptive vocabulary (Lipps & Yiptong-Avila). Therefore, sharing books and reading with the child in their early stages of development likely influences school success in the later years. Lipps & Yiptong-Avila stress that this is true for children regardless of the family's household income and education of the mother. Wade & Moore (2000) found that, "Children who have a head start at school age remain ahead as their primary education continues" (p.1).

Needlman, Fried, Morley, Taylor & Zuckerman (1991) suggest that research has demonstrated that when parents read to their children, the children do become literate more easily. High et al. (2000) point out, "A home environment that encourages learning and parents who are involved in their children's education are important factors in school achievement" (p. 927). Golova, Alario, Vivier, Rodriguez & High (1999) have found that reading aloud and early experiences with books are instrumental in preparing children for success in learning to read. They also report that children who have reading difficulties are at an increased risk for school failure. As Wade and Moore (1998) have proposed, children achieve more when parents are active participants in their children's development and learning. High et al. (2000) suggest that the learning and development that take place in the early years contributes to success as an adult. Children from socially and economically disadvantaged homes lack the environment to support language and

literacy growth and as a result they do not succeed in developing essential literacy skills (Needlman et al., 1991).

Hart & Risley (1995) also report that the family is instrumental in providing for the emergence of language and word learning. They discovered through their research that economic advantage has a significant impact on language outcomes for children. They report that it is not what the children hear but the frequency of these experiences that matters. They also suggest that children living in homes with less economic resources have fewer experiences with language and interactions and as a result learn fewer words and acquire vocabulary at a slower rate than those raised in families with more economic resources. One could argue from this that offering reading programs in hospital settings could be especially beneficial to children from homes with less economic resources since families with fewer economic resources use hospital emergency rooms as sources of primary health care (Kotagal et al., 2002). Reading programs, such as the Read to Me! program, help to increase the frequency of words and stories being heard by these children.

Early Literacy in Pediatrics

Recent research has pointed not only to the importance of reading to young children but also to the benefits of storytelling, singing, and other daily activities. Atkinson et al. (2002) report that, "The social and health issues around literacy have been called the "new morbidity" with regard to America's children" (p. 10). Low literacy skills are a major barrier to educating families about their illness and health management. (Atkinson et al., 2002).This research has influenced the thinking of family doctors and

pediatricians, and as a result, they have begun to prescribe the use of books and reading for babies as part of regular check-ups. The Reach Out and Read program was the first program to promote early literacy in a health care setting. Klass et al. (1999) point out that in many cases physicians and nurse practitioners may be the only professionals trained in child development with which families have contact prior to their child's school entry. As a result, they are ideal candidates to give advice on the benefits of reading and sharing books with young children. As Needlman et al. (2002) report, "The ultimate goal of pediatric literacy intervention for infants and toddlers is to foster a love of books and help lay the foundation for reading success in elementary school" (p. 52).

Reading Programs

In the early 1990s at Boston City Hospital, Reach Out and Read, a clinic-based literacy intervention was started in a health care setting to address family literacy (Zuckerman, 2002). The program was built on the concept of emergent literacy and was designed to encourage literacy among low-income families. Since this time there have been numerous Reach Out and Read and similar programs started at medical centres throughout North America. These programs tend to include volunteers reading with children in clinic waiting rooms and modelling reading aloud for parents, advice given to parents on the importance of reading to children and an offering of developmentally appropriate ideas and encouragement, as well as children receiving a book that is age and culturally appropriate (Needlman, et al., 1991).

Parents of children who receive a book are more apt to spend time reading or looking at books with their children (Needlman, et al., 1991). Golova et al. (1999) report

that families who take part in Reach Out and Read programs tend to have the number of children's books at home increased even beyond the number of books given to children who are part of the intervention group. Needlman et al. (1991) suggest that interventions that expose children to literacy may increase the opportunities for successful reading even for the child raised in poverty. The Reach Out and Read program has a beneficial effect on child language development, is associated with advances in both receptive and expressive language and can have a significant impact on preschool language development (Mendelsohn et al., 2001). Wade & Moore (2003) report that the association between language development and the sharing of books has been well demonstrated. High et al. (1998) point out that a basic and relatively inexpensive intervention including providing educational support and books for low-income families has resulted in reports that these families enjoy and participate in more child-centered activities to promote literacy. As well, High et al. report that reading aloud to young children can stimulate imagination, build vocabulary and develop listening skills and a love of books and learning.

The Importance of Providing Books

Needlman et al. (1991) state that when parents are given books to read with their child they are approximately four times more likely to report looking at books or magazines with their child, a practice classified as "literacy orientation". They also suggest that for children from low-income families, the main barrier to literacy may be pure lack of books. Making gift books available breaks down economic barriers for families with limited or fixed incomes. Needlman et al. (2002) point out that for lower-

income families between 10% and 40% report that the first book they receive for their child is from the initial clinic visit when they take part in the Reach Out and Read program.

Another important point made by Needlman et al. (1991) is that giving books to babies and toddlers sends the message that the children are at an age where they can enjoy books. As well, parents are eager to use the books given by the nurse practitioner or pediatrician because they believe that if medical staff recommended them they must be good for their children. Research findings suggest that the act of giving a book to the family will ensure that some information will be transferred (Jones, Franco, Metcalf, Popp, Staggs and Thomas, 2000). "The likelihood that parents will engage their children in literacy activities at home is increased when they are provided with the tool that enables them to be their child's first teacher at an early age" (Jones et al., 2000, p. 539).

Silverstein, Iverson & Lorano (2002) found that following an intervention more families incorporated reading into the child's bedtime routine at least once a week. Sanders, Gershon, Huffman & Mendoza (2000) point out that, "Parents exposed to even a single episode of receiving a children's book from the physician were more likely to report a higher frequency of sharing books at home with their child, compared with parents not exposed to the program" (p. 776). Jones et al. (2000) suggest that even two years after taking part in a clinic-based literacy intervention program, mother-child pairs who received educational information and a book were twice as likely to report that they enjoyed reading together compared with those who received educational information regarding reading but were not given a book. This confirms the importance of giving

books to families if encouraging reading is the goal. Parents are more apt to engage their children in literacy activities at home if they are provided with the necessary tool, such as a book, to do so (Jones et al.).

All research in this area points to the importance of giving books to families and stresses that although anticipatory guidance is helpful it does not produce the same results as book giving. Neuman (1999) reports that the availability of books has a direct impact on children's early literacy development. "Whatever their economic status, young children thrive in print-rich environments with supportive caregivers to engage them in thinking and talking about story-books" (Neuman & Celano, 2001, p. 556).

Emergency Departments

It has been reported by Atkinson et al. (2002) that patients with lower literacy skills use emergency departments more often than those with higher literacy skills. They frequently have difficulty understanding information given by physicians regarding health care treatment, and may have difficulty understanding how to access the health care system properly. In some cases, these patients use the available services inappropriately, which can add additional burden to emergency department staff. Kotagal et al. (2002) recently reported that mothers of infants taken to the emergency department for health care were more likely to be younger and less likely to have completed high school or to be married. They were also likely to have had more prenatal care visits. Frequently, families who do not have a primary care physician use hospital emergency departments for regular health care visits (Kotagal et al.). Although this can put a strain on emergency staff and services it seems to be an ideal setting to offer a program such as Read to Me!

The Read to Me! program initiated at the IWK Health Centre in Halifax, Nova Scotia, was modelled in part on the Reach Out and Read program in the United States, which now has more than 2000 clinical sites nationally, and a Reading Rovers program operating at the Inova Fairfax Hospital for Children in Virginia. Volunteer readers at the IWK Health Centre receive training to read aloud to children in the emergency department of the hospital. This training is delivered by Read to Me! staff who continue to act as mentors to the volunteers. The training sessions include an overview of the hospital and the reading program, a review of volunteer policies and confidentiality rules, orientation to the emergency department, a presentation by a children's librarian on reading aloud and a demonstration of role-playing situations that a volunteer might encounter in the emergency department.

A "Reading Corner" has been created within the emergency department. This space includes a rocking chair, child sized stools, large bags for carrying books, a good selection of age-appropriate read-a-loud books, puppets, stickers for children, and a locked cupboard to keep supplies. Read to Me! volunteers wear an apron with the Read to Me! logo so that they can easily be identified by children, parents and staff. Volunteers work directly with children; therefore, it is necessary to conduct child-abuse registry checks, police checks and health screenings on every new volunteer.

This program builds on the Nova Scotia Family Literacy Read to Me! Program delivered to parents of every child born in Nova Scotia. The program supports family literacy from birth and stresses how crucial these early years are in the life-long development of each child. Within 24 hours after each child's birth, the family is given a

Read to Me! tote bag which includes two developmentally appropriate books and an instruction booklet on how to enjoy books, nursery rhymes and lullabies with their child. Also included are reading suggestions, information on where families can get books, location of family resource centres, and libraries where families can go for resources and support. As well, there is a list of children's bookstores in Nova Scotia where parents and children can purchase children's books.

The emergency department Read to Me! program targets families with children from birth through six years who come to the hospital for medical attention. The program demonstrates the commitment of the IWK Health Centre to family literacy and its efforts to help family literacy continue to grow. Parental involvement programs such as these are designed to work with parents for the purpose of improving the literacy development of the entire family and especially that of their children. Although there are numerous programs of this type in operation in the United States within pediatric settings, this concept is relatively new to the health care field in Canada. Assuming that this program proves successful in Nova Scotia, it can also serve as a model for other pediatric hospitals throughout Canada.

Method

Participants

Participants were families who presented at the emergency department of the IWK Health Centre with a child six years of age or younger seeking medical treatment. In the original design of this study, it was intended that 364 participants would be surveyed. There were to be approximately 180 in each of the intervention and control groups. Based on hospital records, during the first year of the program, there were fewer children treated in the target age group, which was birth to age six, than originally anticipated. As well, there were times that volunteer readers were present but no children in the target age group were waiting for medical treatment; and at times there were children in the targeted age group awaiting treatment but no volunteer readers were available. Therefore, participants continued to be surveyed for a period of 20 months at which time 114 interviews had been conducted in each of the intervention and control groups. Participants were asked to take part in a follow-up telephone interview. One hundred participants in the intervention group and 103 participants in the control group took part in the follow-up interview. Twenty-seven emergency department staff members were interviewed at the beginning of the program and at the end of the study.

Intervention Group Demographics. Table 1 provides details of the intervention and control group demographics. The median age for the children in the intervention group was in the 3 to 4 year category. Forty-nine percent of the children whose parent was interviewed attended a licensed daycare or preschool. Ninety-five percent of the

participants reported that the primary language spoken in the home was English. The primary language spoken by the remainder of the intervention group was 1 percent Spanish, and 4 percent Arabic. Seventy-one percent of the intervention group spoke English only. The other languages spoken by this group included 4 percent English, 15 percent French, 3 percent Spanish, 1 percent Arabic and 6 percent other. The highest level of education completed by the intervention group was: 10 percent post graduate degree, 27 percent four-year university degree, 30 percent one year of college or vocational training, 19 percent high school graduate, 2 percent GED, 9 percent some high school and 1 percent middle school. The main occupations for this group included 26 percent homemakers, 15 percent service workers, 11 percent clerical and sales workers, 2 percent technicians, 2 percent managers, 28 percent professionals and 13 percent other.

Nine percent of participants were the only adult living in the home, 79 percent had two adults, 8 percent three adults, and 2 percent four adults and 2 percent five or more. Forty percent of families interviewed had one child, 50 percent two children, 9 percent three children and 1 percent four children.

Control Group Demographics. The median age of children in the control group was in the 0-12-month category. Twenty-five percent of the children whose parent was interviewed attended a licensed daycare or preschool. Ninety-five percent of the participants reported that the primary language spoken in the home was English. The primary language spoken by the remainder of the control group was 1 percent French, 1 percent Arabic, and 3 percent other. Seventy-three percent of the control group spoke English only. The other languages spoken by this group included 4 percent English, 16

percent French, 1 percent Arabic and 2 percent Mi'Kmaq. A breakdown of the highest level of education completed by the control group indicated the following: 10 percent postgraduate degree, 15 percent four-year university degree, 36 percent one year of college or vocational training, 18 percent high school graduate, 3 percent GED, 17 percent some high school and 1 percent middle school. The main occupations for this group included 41 percent homemakers, 16 percent service workers, 12 percent clerical and sales workers, 2 percent technicians, 2 percent managers, 20 percent professionals and 6 percent other. Seventeen percent of the participants were the only adult living in the home, 75 percent had two adults, 7 percent three adults, and 3 percent four adults. Forty-two percent of families interviewed had one child, 35 percent two children, 16 percent three children, 6 percent four children and 1 percent had five or more.

There is a difference between the intervention and control groups on three main demographic variables. Inspection of the data shows the control group had significantly more children in the 0-12-month age category (χ^2 (5) = 84.814, p < 0 .000) while the intervention group had significantly more children in the two to three, three to four, and four to five age categories. For the day care variable inspection of the chi-square table shows significantly more children in the intervention group attend day care and significantly more children in the control group do not attend daycare. (χ^2 (1) = 14.778, p < .000). For participation in the newborn Read to Me! variable, inspection of the chi-square table shows that significantly more children in the control group have experienced the newborn Read to Me! program. (χ^2 (2) = 30.353, p < .000). Given the age of the children in the control group, they are more likely to have been exposed to the newborn

Read to Me! program than the older children who formed the intervention group. It is also noted that these differences have the potential to constitute a selection threat to the internal validity of the study. An investigation of the effect of these variables is presented in the results section.

Staff Demographics. Table 2 presents information on the staff demographics. Twenty-seven staff members that worked in the emergency department were interviewed at the beginning of the Read to Me! program and at the end of the pilot study. Staff consisted of staff nurses, ward clerks, ward aides, registration/admitting clerks, and administrative assistants. Of the staff interviewed, 19 percent had worked at the hospital for ten years or

longer, 15 percent for five to ten years, 41 percent for one to five years and 25 percent for less than one year.

Procedure

The researcher worked in collaboration with the project team at the IWK Health Centre. The team consisted of the program champion, head of emergency department, health services manager, clinical leader, volunteer coordinator, registration clerk, head of volunteer services, representative of the perinatal epidemiology research unit, program associate and director of the Read to Me! program. The purpose of the study was to evaluate the Read to Me! program offered in the emergency department of the health centre. The participant sample size was established based on forecast hospital visits by children in the target age range using previous hospital records as a guide. Research questions were proposed by the researcher and agreed to by the Read to Me! Project

Team. Draft questionnaires were developed by the researcher and circulated to the project team for approval.

Interviews were conducted over a 20-month period. The researcher conducted all interviews carried out at the IWK Health Centre as well as the telephone follow-up surveys. When the Read to Me! program began it operated from Monday until Thursday only. The program operated when volunteer readers were available to read to the children. The researcher interviewed the control group at times when the program was not operating and interviewed participants from the intervention group when a volunteer reader was present. As the program became more established it began to operate seven days a week from 2 pm until 10 pm. Not all shifts were filled by a volunteer.

If a child six years of age or younger was being admitted, the interviewer approached the family after the child was assessed by the triage nurse and verified the age of the child. If the child was six years or younger they were asked to take part in the study. Individuals taking part in the interview were informed of the purpose of the study and were asked to sign a consent form prior to taking part. The researcher explained to the participants that their participation was voluntary and that they could discontinue the process at any time if they felt that they did not want to continue. Participants were informed that whether or not they took part in the study would not affect the health services they received at the IWK Health Centre. All individuals who took part in the interviews were thanked for their participation.

The researcher attended the training sessions for volunteer readers that were offered by Read to Me! staff. At these sessions, the researcher would explain the research project and offer tips on how to engage families and children for the reading program.

Families in the control group did not take part in the Read To Me! intervention and no volunteer reader was present when these families were interviewed. Data were collected from the control group by interviewing parents/guardians who accompanied their children to the emergency department for care. The researcher would approach the family after the triage nurse assessed the child. They were asked questions regarding family routines and reading patterns. They were also asked to take part in a follow-up telephone interview approximately six to eight weeks after the initial interview to determine whether there had been any changes in literacy patterns in the home. One hundred and fourteen families were interviewed.

Families in the intervention group did take part in the Read To Me! intervention. They were interviewed on the day that the intervention took place. They had their child read to by a volunteer reader, were given a handout on tips for reading to young children and a list of age appropriate books as well as the gift of a book to take home. Data were collected from the intervention group by interviewing parents/guardians and asking them the same set of questions regarding family routines and reading patterns as were asked to the control group. They were also asked to take part in a follow-up telephone interview approximately six to eight weeks after the initial interview to determine whether there had been any changes in literacy patterns in the home. One hundred and fourteen families were interviewed.

When the volunteer readers and the researcher arrived they would introduce and identify themselves to the triage nurse before signing in for their shift. All volunteers were required to wear hospital photo identity badges when on duty. The volunteer reader would unlock the cupboard where the books were stored and choose books to read to the children during their shift. They would then approach families and give them a handout on tips for reading to young children and an age appropriate book list. The volunteer would ask the family if they and their child were interested in having a book read. The volunteer readers had access to puppets that accompanied some of the books and would sometimes ask the children if they wanted to watch or take part in a puppet show. This activity was very successful in attracting children to the reading corner.

The researcher kept the survey forms and the Caillou books that were given to families in the intervention group in a locked cabinet. These would be collected for use upon arrival. Once the volunteer reader would read a story to a child, the researcher would approach the parent/guardian and ask that they take part in the interview. If the child was called to a treatment room while the story was being read or during the interview, the researcher asked the family if she could come to the treatment room to complete the interview. In all cases parents agreed to this request. The researcher would leave the room if a nurse or physician came to the room to assess or treat the child.

Staff in the emergency department was also interviewed at the beginning and at the end of the pilot study to identify any impacts of the reading program on emergency department staff and their working environment.

The follow-up interviews were conducted by telephone. Data were collected by interviewing parents/guardians and staff. They were asked questions regarding family routines, reading patterns and the Read to Me! program. The researcher was sensitive to the needs of the family when carrying out follow-up interviews by telephone and asked if it was a convenient time to carry out the interview, and if not, a more convenient time was arranged. The initial intent was to follow-up by telephone approximately twelve to sixteen weeks after taking part in the Read to Me! intervention. However, it was decided that the follow up survey would take place six to eight weeks after the initial interview to allow data collection to be completed in a reasonable period of time. One hundred and three participants responded in the control group, 100 in the intervention group and 27 staff members were followed up by telephone interview.

All data were coded by the researcher and entered into SPSS. The data were nominal and ordinal in nature therefore nonparametric statistics were employed in the analysis. The tests used were the Wilcoxon Signed Rank Test and the Chi-square Test.

Measures

A number of surveys were developed to collect data from the participants. In the following paragraph a description of each survey is given. The survey forms are included in Appendix B.

Survey/Interview # 1- Parent/Guardian (Control Group). To measure literacy practices of the participants an author-developed interview was carried out with parents/guardians who did not take part in the Read to Me! program. The interview

consisted of 17 questions and was administered in a face-to-face interview. The questions were read aloud to each participant and the answers recorded.

Survey/Interview # 2 - Parent Guardian Follow- up (Control Group). To measure literacy practices of the participants an author-developed follow-up interview was carried out with parents/guardians who did not take part in the Read to Me! program. The interview consisted of 15 questions and was administered by telephone.

Survey/Interview # 3 - Parent/Guardian Pre Read to Me! (Intervention Group). To measure literacy practices of the participants an author-developed interview was administered to the parent/guardian of the child who took part in the Read to Me! program intervention. The interview consisted of 17 questions and was administered in a face-to-face interview. The questions were read aloud to each participant and the answers were recorded.

Survey/Interview # 4 - Parent/Guardian Post Read to Me! (Intervention Group). To measure literacy practices of the participants an author-developed interview was administered to the parent/guardian of the child who participated in the Read to Me! intervention. This follow-up interview took place 6 to 8 weeks after the initial intervention. The interview consisted of 20 questions and was administered by telephone.

Survey/Interview # 5 - Initial Staff Read to Me! Program. To collect baseline data on emergency department staff who work at the IWK Health Centre an author-developed interview was administered to staff at the beginning of the Read to Me! program. The interview consisted of 4 questions and was administered in a face-to-face interview. The questions were read aloud to each participant and the answers recorded.

Survey/Interview # 6 - Staff Follow-Up Read to Me! Program. To measure changes or perceived changes at the IWK Health Centre in the emergency department as a result of the Read to Me! program staff was interviewed at the end of the pilot project. The interview consisted of 6 questions and was administered by telephone interview.

Ethical Concerns

Approval of the proposal was obtained from the University Research Ethics Board (UREB) of Mount Saint Vincent University and the Research Ethics Board (REB) of the IWK Health Centre. Once approval was granted data were collected from the participants. Individuals taking part in the interview were asked to sign a consent form and informed that their participation was voluntary and would not affect the health services they received at the IWK Health Centre. The researcher recognized that the parent/guardian might be emotionally distraught as a result of their child's illness and was sensitive to the needs of the family when conducting interviews.

There were no limits on the number of stories a child could listen to and all children, regardless of age, were welcomed to hear the stories read by the volunteer reader. Respect was shown for the one parent who declined to participant in the study.

The researcher did not have access to medical records. There was complete anonymity for respondents and their names were not recorded on data forms. Each respondent was assigned a number on the day of the initial interview and matched for follow-up interview. On completion of study, all data forms will be kept in a locked

cabinet, in a locked office at Mount Saint Vincent University. They will be kept for five years, which is the standard requirement of the IWK Health Centre.

The researcher maintained strict adherence to ethical guidelines at all stages of the research.

Research Hypotheses

The following hypotheses were tested in the current study:

A Intervention provided to parents and their children through the Read to Me! program should provide them with both the knowledge and the tools they need to change their attitudes about the importance of reading with young children.

B Taking part in the Read to Me! program should lead to the reporting of increased reading and looking at books among parents and children.

C When data from the initial survey are compared to data from the telephone follow-up survey for the intervention group, it should show an increase in the parent's enjoyment of reading books with their young children.

D When data from the initial survey are compared to the telephone follow- up survey for the intervention group it should show an increase in the child's enjoyment of reading and looking at books.

E When data from the control group are compared to data from the intervention group they should reveal that families who take part in the Read to Me! program will increase literacy-related activities.

F When data collected from staff at the beginning of the program are compared with data collected from staff at the end of the pilot project there should be a positive correlation between the Read to Me! program being carried out in the emergency department and a decrease in parent questioning of staff about how long it would be before a patient would be seen by a doctor.

Results

Preliminary Analyses – Demographic Variables

In three of the demographic variables, participation in the newborn Read To Me! program, day care attendance and age of the participating children, there were significant differences between the intervention and control groups. Significantly more of the control group participants experienced the newborn Read To Me! program (χ^2 (1) = 30.353, p < .000). Fifty percent of the control group as opposed to 15.8 percent of the intervention group participated in the newborn Read To Me! program. To examine the potential impact of this difference on the outcome of the evaluation of the emergency department Read To Me! program, the main dependent variables were analyzed using participation in the newborn Read To Me! program and treatment condition (intervention and control) as the independent variables with both the pre- and post-intervention data. Including time of measurement (pre/post) as a within subjects variable resulted in expected cell counts that invalidated the analysis, thus the pre- and post-intervention data were analysed separately in each of the analyses involving the demographic variables. There were no significant differences observed in any of the analyses. See Table 3 for the results of the treatment condition by participation in the newborn Read To Me! (NRTM) analyses for both the pre- and post-intervention data.

Significantly more of the intervention group participants represented children who had attended day care (χ^2 (1) = 14.778, p < .000). For the intervention children, 49.1 percent attended day care while for the control children, 24.6 attended day care. Again, differences in the main dependent variables were investigated using day care attendance

and treatment condition as the independent variables. There were no significant differences observed in any of the analyses. See Table 3 for the results of these analyses for both the pre- and post-intervention data.

Finally, the control group children were significantly younger than the intervention group children (χ^2 (5) = 84.814, p < .000). The median age for the control group children is in the 0-12-month category (range = 5). The median age for the intervention children is in the 3-4-year category (range = 6). Differences in the main dependent variables were investigated using age and treatment condition as the independent variables. There were no significant differences observed in any of the analyses. See Table 3 for the results of these analyses for both the pre- and post-intervention data.

When the significant differences between the intervention and control groups in these demographic measures are introduced into the analyses of the main dependent variables, any significant outcomes associated with the treatment conditions were obscured by the high proportion of cells with an expected frequency less than five. The average number of cells with expected values less than five was in excess of the 20 percent regarded as the acceptable minimum for large table analyses (Wickens, 1989). In each of the analyses involving the demographic variables the null hypothesis is accepted. Accepting the null hypothesis is an indication that the results are a function of random error (Cozby, 1997). Thus, it is not possible to demonstrate that the demographic variables have any systematic effect on the interpretation of this evaluation data. The subsequent analyses, therefore, exclude these demographic variables.

Preliminary Analyses – Main Dependent Measures

Initial analyses were attempted using treatment condition (intervention and control groups) and time of data collection (pre survey and post survey) with the main dependent variables in a two by two by "n" chi-square table. The value "n" varies per analysis depending on the number of categories present in the dependent measure. The results of these analyses are presented in Table 5. In each analysis the resulting chi-square value was not significant. The reason for these outcomes is the same as was presented above. In each case an unacceptably large number of cells have expected frequencies of less than five thus invalidating these analyses (Wickens, 1989). According to Wickens (1989) it is statistically appropriate to reduce the number of cells in a table by removing a variable. In this context, the solution employed here was to analyze the treatment condition effect and the time of data collection effect separately. Chi-square and Wilcoxon test, as appropriate, were used to investigate the differences between intervention and control groups and pre-post differences for the relevant dependent measures. The subsequent presentation of the results is based on this strategy. The results are presented in Table 5. It should be noted that only significant outcomes from analyses with sufficient expected cell frequencies are presented in Table 5. This means that if a cell in Table 5 is blank the analysis related to that cell was not significant.

Knowledge and Tools and Their Impact on Attitudes about Reading

Parents were asked a number of questions to test the hypothesis that intervention provided to parents and their children through the Read to Me! program would provide them with both the knowledge and the tools they needed to change their attitudes about

the importance of reading with young children. The questions analyzed pertaining to this hypothesis included:

-Child's three favourite activities

-Parent's favourite indoor activity with child

-Appropriate age to begin reading to child

-Frequency of reading to child

-Observation of volunteer reading to child

-Library card ownership

-Library use by parents

-Library use by child

-Volunteer observed reading to child

-Learning of new reading techniques

-Books received since intervention

The first question asked participants to identify the three favourite activities that their child likes to do for enjoyment while indoors. Parents were provided with a list of items to choose from which included playing games, watching TV and videos, reading or looking at books, playing with toys and a category that grouped all other activities. They were not asked to rank these but merely to identify their child's three favourite indoor activities (see Figure 2, Table 5).

A Wilcoxon Signed Ranks Test was used on the number of times each activity was identified pre-and-post for the intervention group. In the initial interview, books were

identified as a favourite activity by 78.9 percent of the parents; however, in the follow-up interview books were identified as a favourite indoor activity by 70.2 percent of the parents. When book use was compared pre- to- post there was no significant difference in the number of times books were listed as one of the child's favourite activities ($z = -167$, $p = .096$). For games, the results from the initial interview were that 28.1 percent of the parents identified games as a favourite indoor activity. This rose to 36.0 percent in the subsequent interview. The increase was not significant ($z = -1.44$, $p = .150$).

In the initial interview, 67.5 percent of parents responded that watching television and videos was a favourite indoor activity. At the follow-up interview, the percentage of parents dropped to 51.8 percent. This decrease was significant ($z = -3.08$, $p = .002$). For the toy category, 34.2 percent of parents identified this activity as a favourite in the initial interview and the percentage of parents who selected it in the follow-up interview increased to 65.8. This increase was significant ($z = -4.65$, $p < .000$). For the other activities category, 26.3 percent of parents identified this activity as a favourite in the initial interview and the percentage of parents who selected it in the follow-up interview increased to 36.8 ($z = -1.897$, $p = .058$). This indicated a marginally significant increase in the category of other.

In order to determine if the Read to Me! program results in increased literacy-related activities, parents in the control group were asked a number of similar questions. A Wilcoxon Signed Ranks Test was used on the number of times each activity was identified pre-and- post for the control group. In the initial interview, books were identified as a favourite activity by 78.9 percent of the parents and in the follow-up

interview this decreased to 71.9. For books, the Wilcoxon produced a z score of -1.41 and a p-value of .157. For games, the results from the initial interview were that the 33.3 percent of parents who identified games as a favourite indoor activity rose to 44.7. There was a marginally significant increase in the number of parents who identified games as a preferred indoor activity ($z = -1.94$, $p = .053$). In the initial interview, 48.2 percent of parents responded that watching television and videos was a favourite indoor activity. At the follow-up interview, the percentage dropped to 46.5 percent. For watching television and videos the Wilcoxon produced a z score of -.354 and a p- value of .724. In the initial interview, toys were identified as a favourite activity by 58.8 percent of the parents and in the follow-up interview toys were identified by 78.9 percent of the parents. There was a significant increase in the number of parents who identified toys as a preferred indoor activity ($z = -3.51$, $p < .000$). For the "other activities" category, the results from the initial interview were that the 23.7 percent of parents who identified other as a favourite indoor activity rose to 27.2. The Wilcoxon produced a z score of -.686 and a p- value of .493. There was a significant increase, from initial interview to follow-up interview, in toys and games being identified as a favourite activity.

Parents in the control group reported that reading or looking at books was one of their child's three favourite activities during the initial interview as well as when they completed a follow-up interview by telephone. In the control group more parents listed books as one of their child's three favourite activities in the initial survey than they did when they responded to a telephone follow-up survey. However, parents in the control

group less frequently selected activities other than books during the initial interview and the follow-up interview.

Although there was no increase in the number of times books were chosen as a favourite activity from initial to subsequent interview, in both the intervention and control group, books were identified as a favourite activity more often than any other activity and reading was selected as the indoor activity parents enjoy doing most with their child. There was a significant increase, from initial interview to follow-up interview for the intervention group, in toys being identified as a favourite activity. There was a significant decrease from initial to follow-up interview in TV viewing and no change in the category that grouped all other categories.

Parents in the intervention group were also asked what indoor activity they enjoyed most with their child. Parents were provided with a list of items to choose from which included playing games, watching TV/videos, reading or looking at books, playing with toys and a category that grouped all other activities. In the initial interview 52.6 percent of parents identified reading and looking at books as the favourite indoor activity that they enjoyed doing with their child and 54 percent identified reading and looking at books in the follow-up interview. This activity was the most frequently selected activity ($\chi^2 = 83.569$, $p < .000$) (see Figure 3, Table 5). Parents in the control group were also asked what indoor activity they enjoyed most with their child. Parents were provided with a list of items to choose from which included playing games, watching TV/videos, reading or looking at books, playing with toys and other. In the initial interview, 41.2 percent of parents identified reading and looking at books as the indoor activity they

enjoyed most with their child and this rose to 46.6 at the follow-up interview. This activity was the most frequently selected activity (χ^2 (16) = 87.031, $p < .001$) (see Figure 3, Table 5).

When data from the control group were compared to data from the intervention group parents in both groups reported that reading and looking at books was the activity that they enjoyed most with their child. The results indicate that there were more families in the intervention group reading to their child almost daily or at least 2 to 3 times a week than there were in the control group.

Parents in the intervention group were asked what they thought was the most appropriate age to begin to read to a child. They were provided with a list of age ranges to choose from which included 0-12 months, older than 1 but less than 2, older than 2 but less than 3, older than 3 but less than 4, older than 4 but less than 5 and other. Ninety percent of the parents in the intervention group indicated that the most appropriate age to begin reading to a child is 0 to 12 months. Seven percent indicated that the child should be older than one but less than two years, 1.8 percent indicated older than two but less than three years and one parent indicated that reading should begin before the child is born. Not surprisingly, beginning to read during the first year was statistically significant (χ^2 (3) = 260.667, $p < .001$) (see Figure 4, Table 5). Parents in the control group were asked what they thought was the most appropriate age to begin to read to a child. Eighty nine percent of the parents in the control group indicated that the most appropriate age to begin reading to a child is 0 to 12 months, 7 percent indicated that the child should be older than one but less than two years, 1 percent indicated older than two but less than

three years, 1 percent indicated older than three but less than four and 2 percent indicated that reading should begin before the child is born. Beginning to read during the first year was statistically significant (see Figure 4, Table 5).

Parents in the intervention group were asked if they or someone else read to their child. The original categories were collapsed to include almost daily, weekly and rarely or never. In the initial interview, 90.4 percent of parents indicated that their child is read to almost daily and 9.6 weekly. In the follow-up interview, the percentage of parents who reported their child was read to almost daily was 94 percent. Six percent reported that their child was read to weekly (see Figure 5, Table 5). Parents in the control group were asked if they or someone else read to their child. The original categories were collapsed to include almost daily, weekly and rarely or never. In the initial interview, 87.7 percent of parents indicated that their child is read to almost daily, 7.9 percent of children are read to weekly and 4.4 percent of children were rarely or never read to. In the subsequent interview 79.6 percent of parents indicated that their child is read to almost daily, 16.5 percent of parents read to their child weekly and 3.9 percent reported reading rarely or never to their children. There was no significant difference in the reading frequency between the two interviews for the control group. ($\chi^2 = 13.334$, $p < .345$). When the post survey data for the intervention and control groups were compared significantly more of the intervention parents reported reading to their child daily (see Figure 5, Table 5).

Parents in the intervention group were asked if they had observed their child looking at books on his or her own. They were provided with a list of items to choose from which included almost daily, weekly, monthly and rarely or never. In the initial

interview, 88.6 percent of parents indicated that they observed their child looking at books almost daily, 7.0 percent observed their child looking at books weekly and 1.8 percent monthly and 2.7 rarely or never. In the follow-up interview 80.0 percent of parents reported that they observed their child looking at books almost daily, 17.0 percent observed their child looking at books weekly and 3.0 percent monthly. The change from initial to subsequent interview is not significantly different (χ^2 (4) = 8.324, p = .080) (see Figure 6, Table 5).

Parents in the control group were asked if they had observed their child looking at books on his or her own. After an inspection of the original data, the categories were collapsed to four (almost daily, weekly, monthly and rarely or never). In the initial interview, 76.3 percent of parents indicated that they observed their child looking at books daily, 7.0 percent observed their child looking at books weekly, 1.8 percent monthly and 14.9 percent reported that they had never observed their child looking at books on their own. In the follow- up interview 78.6 percent of parents reported that they observed their child looking at books daily, 12.6 percent observed their child looking at books weekly, 1.9 percent monthly, and 6.8 percent reported that they had never observed their child looking at books on their own. There was a significant difference between the two interviews (χ^2 (12) = 46.782, p < .000). An inspection of the observed category changes indicated that there was an increase in the frequency of looking at books as reported by the parents. (see Figure 6, Table 5)

In the initial interviews, more parents from the intervention group observed children looking at books almost daily than in the control group (88.6 verses 76.3). More

of the control group reported in the periodical category (χ^2 (3) = 18.310, p < .000). In the follow-up interviews, an increase was identified in the periodical category in the control group (χ^2 (3) = 7.697, p < .053). Most children in the intervention group were observed looking at books at least 2 to 3 times per week.

Parents in the intervention group were asked if they have their own library card. In the initial interview, 78 percent of parents indicated that they did have their own library cards. In the follow-up interview 80 percent of parents indicated that they did have their own library cards. Significantly more parents have library cards (χ^2 (2) = 106.263, p < .000) (see Figure 7, Table 5). Participants in the control group were asked if they have their own library card. In the initial interview, 72.8 percent of parents indicated that they did have their own library cards. In the follow-up interview 76.7 percent of parents indicated that they did have their own library cards. In both instances, significantly more parents have library cards (χ^2 (4) = 54.893, p < .000) (see Figure 7, Table 5).

Parents in the intervention group were asked how often they use the library. The original categories were collapsed to include 2 to 3 times a month or greater, less than once a month and rarely or never. For library use, the results from the initial interview were that 48.2 percent of parents visit the library 2 to 3 times a month or greater, 24.6 percent less than once a month and 27.2 percent rarely or never use the library. At the follow-up interview, the percentage of parents who reported using the library increased and 65 percent reported using the library 2 to 3 times a month or greater, 11 percent less than once a month and 24 percent rarely or never. The frequency of library visits was

greater at the follow-up interview when compared to the results from the initial interview (χ^2 (4) = 52,648, p < .000) (see Figure 8, Table 5). Participants in the control group were asked how often they use the library. The original categories were collapsed to include 2 to 3 times a month or greater, less than once a month and rarely or never. For library use, the results from the initial interview were that 35.1 percent of parents visit the library 2 to 3 times a month or greater, 25.4 percent less than once a month and 39.4 percent rarely or never use the library. At the follow-up interview, the percentage of parents who reported using the library 2 to 3 times a month or greater was 43.7 percent while a greater percentage of parents (26.2 percent) indicated they visit the library less than once a month and fewer parents (30.1 percent) fell in the rarely or never category. This increase in the moderate use category combined with the decrease in the rarely or never category was statistically significant (χ^2 (4) = 67.488, p = .000) (see Figure 8, Table 5)

More parents in the control group than in the intervention group reported that they were not using the library. There was evidence that parents in the intervention group use the library more frequently than the control group. There was an increase in the frequency of library visits reported by the intervention group during the subsequent interview. A significant number of these parents visit the library at least 2 to 3 times a month.

Parents in the intervention group were asked how often they or someone else take their child to the library. The original categories were collapsed to include 2 to 3 times a month or greater, less than once a month and rarely or never. In the initial interview, 49.1 percent of parents indicated that their child visited the library two to three times a month or greater, 19.3 percent indicated less than once a month and 31.6 reported that their child

visited the library rarely or never. In the follow-up interview the percentage of parents who reported their child visited the library 2 to 3 times a month rose to 51 percent, less than once a month 25 percent and only 24 percent reported rarely or never using the library. This increase in library use is significant (χ^2 (4) = 49,071, p < .000) (see Figure 9, Table 5). Parents in the control group were asked how often they or someone else take their child to the library. The original categories were collapsed to include 2 to 3 times a month or greater, less than once a month and rarely or never. In the initial interview, 30.7 percent of parents indicated that their child visited the library two to three times a month or greater, 21.1 percent indicated less than once a month and 48.2 reported that their child visited the library rarely or never. In the follow-up interview the percentage of parents who reported their child visited the library 2 to 3 times a month rose to 43.6 percent, 19.4 percent less than once a month and 37 percent reported rarely or never using the library. This increase in library use is significant (χ^2 (4) = 64.675, p < .000) (see Figure 9, Table 5).

Parents in the intervention group were asked if they observed the volunteer reader reading to their child in the emergency department. They were provided with a list of items to choose from which included no, yes, don't know/not sure. Ninety five percent responded that they did observe the volunteer reader reading to their child, three percent did not and two percent reported that they don't know/not sure. A significant number of parents observed their child's participation in the program (χ^2 (2) = 171.140, p < .001) (see Figure 10, Table 5).

Parents in the intervention group were asked if they learned new techniques for

reading with their child. They were provided with a list of items to choose from which included no, yes, don't know/not sure. Eighty four percent indicated that they did not learn new techniques for reading with their child, 15 percent indicated that they did learn new techniques and 1 percent responded don't know/not sure. A significant number of parents did not learn any new techniques (χ^2 (2) = 18.460, $p < .001$) (see Figure 11, Table 5).

Parents in the intervention group were asked if their child received any books since taking part in the Read to Me! program in the emergency department of the IWK Health Centre. They were provided with a list of items to choose from which included no, yes and don't know/not sure. Seventy four percent of parents indicated that their child did receive books since taking part. A significant number of children have received books since taking part in the Read to Me! program (χ^2 (1) = 23.040, $p < .001$) (see Figure 12, Table 5).

The increase in the number of families with library cards, the increased use of libraries, increase in the number of times the child visited the library and was observed looking at books, the number of children who had received books since taking part in the Read to Me! program provides support for the hypothesis that the Read to Me! program provides parents with the knowledge and the tools they need to change their attitudes about the importance of reading with young children.

Reading and Looking at Books

Parents were asked a number of questions to test the hypothesis that intervention provided to parents and their children through the Read to Me! program would lead to the

reporting of increased reading and looking at books among parents and children. The questions analyzed included:

-Child's three favourite indoor activities

-Parent's favourite indoor activity with child

-Frequency of reading to child

-Observation of child looking at books

-Library use by parents

-Library use by child

The results are presented in Table 5 and Figures 2,3,5,6,7, and 8. The identification of reading as a preferred activity, the increase in the number of parents reading to their child, the increase in children observed looking at books, the increased use of libraries, and the slight increase in the number of times the child visited the library provides support for the hypothesis that the Read to Me! program has a positive impact on book sharing.

Parent's Enjoyment of Reading Books with Their Young Children

Parents were asked a number of questions to test the hypothesis that intervention provided to parents and their children through the Read to Me! program would increase parent's enjoyment of reading books with their young children. The questions analyzed included:

-Parent's favourite indoor activity with child

-Frequency of reading to child

The results are presented in Table 5 and Figures 3 and 5. There was no increase in the number of times books were chosen as a favourite activity from initial to subsequent interview, however, books were identified as a favourite activity more often than any other activity and reading was selected as the indoor activity parents enjoy doing most with their child. Reading to children increased significantly for the intervention group. This would support the hypothesis that parent's enjoyment of reading or looking at books with their children increased.

Child's Enjoyment of Reading and Looking at Books

Parents were asked a number of questions to test the hypothesis that intervention provided to parents and their children through the Read to Me! program should show an increase in the child's enjoyment of reading and looking at books. The questions analyzed included:

-Child's three favourite activities

-Frequency of reading to child

-Observation of child looking at books

The results are presented in Table 5 and Figures 2, 5 and 6. The intervention and control group identified books as a favourite activity more often than any other activity. When data from the control group were compared to data from the intervention group parents in both groups reported that reading and looking at books was the activity that they enjoyed most with their child. There were more families in the intervention group reading to their children almost daily or at least weekly. These results do provide some support for the hypotheses those children who take part in the Read to Me! program will

have increased enjoyment of reading and looking at books.

Read to Me! Program Increased Literacy Related Activities

Parents were asked a number of questions to test the hypothesis that intervention provided to parents and their children through the Read to Me! program would lead to increased literacy related activities in families. The questions analyzed included:

-Child's three favourite activities

-Parent's favourite indoor activity with child

-Frequency of reading to child

-Observation of child looking at books

-Library card ownership

-Library use by parents

-Library use by child

-Learning of new reading techniques

-Books received since intervention

The results are presented in Table 5 and Figures 2, 3, 5, 6, 7, 8, 9, 10 and 11. Books were identified as a favourite activity more often than any other activity and reading was selected as the indoor activity parents enjoy doing most with their child, in both the intervention and control group. There was a significant increase, from initial interview to follow-up interview for the intervention group, in toys being identified as a favourite activity. There was a significant decrease from initial to follow-up interview in TV viewing and no change in the category that grouped all other categories.

Reading to children increased significantly for the intervention group. Almost all parents in the intervention group read frequently to their child. Similar results were reported regarding the frequency of the child being observed looking at books with most children observed looking at books at least 2 to 3 times per week.

The majority of parents in the intervention group reported that they had library cards and there was no significant change across the two interviews. There was an increase in the frequency of library visits reported by the intervention group during the subsequent interview. A significant number of these parents visit the library at least 2 to 3 times a month. Seventy four percent of participants reported having received books since the intervention.

Parents in the control group reported that reading or looking at books was one of their child's three favourite activities during the initial interview as well as when they completed a follow-up interview by telephone. More parents listed books as one of their child's three favourite activities in the initial survey than they did when they responded to a telephone follow-up survey.

When data from the control group were compared to data from the intervention group parents in both groups reported that reading and looking at books was the activity that they enjoyed most with their child. The results indicate that there were more families in the intervention group reading to their child almost daily or at least 2 to 3 times a week than there were in the control group. More parents in the control group than in the intervention group reported that they were not using the library. There was evidence that parents in the intervention group use the library more frequently than the control group.

The increase in the number of families with library cards, the increased use of libraries, slight increase in the number of times the child visited the library and was observed looking at books, the number of children who had received books since taking part in the Read to Me! program provides support for the hypothesis that the Read to Me! program contributed to an increase in literacy related activities.

Impact of Read to Me! on Parent Questioning of Staff

To test the hypothesis, when data collected from staff at the beginning of the program is compared to data collected from staff at the end of the program there would be a positive correlation between the Read to Me! program being carried out in the emergency department and a decrease in parent questioning of staff about how long it will be before a patient will be seen by a doctor, staff members were asked if parents frequently inquire about how long it will be before their child will be seen by a doctor. In the initial interview, 77.8 percent of staff indicated that parents frequently ask how long it will be before their child is seen by a doctor. In the follow-up interview 40.7 percent of staff indicated that there were fewer interruptions by parents inquiring about when their child would be seen by a doctor. No fewer interruptions were reported by 3.7 percent of staff and 37% reported don't know/not sure. The perceived reduction in inquiries is significant (χ^2 (2) = 12.667, $p < .002$) (see Table 5 and Figure 12).

When data collected from staff at the beginning of the program were compared to data collected from staff at the end of the study, staff reported that there was a significant reduction in inquiries from parents asking how long before their child would be seen by a doctor. This supports the hypothesis that there is a positive correlation between the Read

to Me! program being carried out in the emergency department and a decrease of parent questioning of staff.

Parent Evaluation of Read to Me!

Although not directly used for evaluation of the research hypothesis, the study also provided the opportunity to gather additional information on parent attitudes about the Read to Me! program. Parents in the intervention group were asked if their child took part in the newborn Read to Me! program. They were provided with a list of items to choose from which included no, yes, or don't know/not sure. Most families, 80.7 percent had not taken part in the newborn Read to Me! program, 18.4 percent had taken part and 0.9 percent responded don't know/not sure. A significant number of parents recalled that their child was involved in the newborn Read to Me! program (χ^2 (1) = 96.040, $p < .001$) (see Table 5 and Figure 14.

Parents in the intervention group were asked if their child enjoyed having someone read to him/her while waiting to see a doctor. They were provided with a list of items to choose from which included no, yes, don't know/not sure. Ninety four percent indicated that their child did enjoy having a volunteer reader read to them, one percent reported that their child did not enjoy having a reader read to them and five percent responded don't know/not sure. A significant number of children enjoyed the experience (χ^2 (2) = 165.860, $p < .001$).

Parents in the intervention group were asked to rate the Read to Me! program. They were provided with a list of items to choose from which included excellent, very good, good, not very good, poor, don't know/not sure or other. Sixty eight percent of

parents rated the program as excellent, 27 percent as very good, and 5 percent as good. A significant number of parents rated the program as excellent (χ^2 (2) = 61.340, $p < .001$) (see Table 5 and Figure 15).

Parent rating of the program was positive overall. All but one parent in the intervention group reported that they recalled having a volunteer reader read to their child in the emergency department and most parents reported that they had observed the volunteer reading to their child. Only 15 of the 100 parents completing the follow-up survey reported that they learned new techniques for reading with their child. Most parents reported that their child enjoyed having someone read to him/her while waiting to see a doctor and the majority of families responding reported that their child had received at least one book since taking part in the Read to Me! program. All families taking part in the study rated the program as good to excellent.

Discussion

The Read to Me! program was designed to positively influence attitudes and practices related to reading in both parents and children. This brief intervention, which occurred during a visit to an emergency department in a children's hospital, was evaluated using structured interviews with parents. The purpose of this study was to evaluate the program in the emergency department of the IWK Health Centre.

Intervention provided to parents and their children through the Read to Me! program was predicted to increase parental knowledge and attitudes about the importance of reading with young children. Questions directed at uncovering the frequency of reading and looking at books among parents and children, parent's enjoyment of reading books with their young children and the child's enjoyment of reading and looking at books were asked during face to face and telephone interviews. Emergency department staff was asked to rate the impact of this project on their interactions with parents.

The increase in the number of families with library cards, the increased use of libraries, increase in the number of times the child visited the library and was observed looking at books, the number of children who had received books since taking part in the Read to Me! program supports the hypothesis that the Read to Me! program provides parents with the knowledge and the tools they need to change their attitudes about the importance of reading with young children.

The identification of reading as a preferred activity, the increase in the number of parents reading to their child, the increase in children observed looking at books, the increased use of libraries, and the slight increase in the number of times the child visited

the library supports the hypothesis that the Read to Me! program has a positive impact on book sharing.

There was no increase in the number of times books were chosen as a favourite activity from initial to subsequent interview for the intervention and control groups. Books were identified, however, as a favourite activity more often than any other activity and reading was selected as the indoor activity parents enjoy doing most with their child in both groups. Reading to children increased significantly for the intervention group. This would support the hypothesis that parent's enjoyment of reading or looking at books with their children increased.

Books were identified as a favourite activity more often than any other activity for the intervention and control group. When data from the control group were compared to data from the intervention group, parents in both groups reported that reading and looking at books was the activity that they enjoyed most with their child. There were more families in the intervention group reading to their children almost daily. Therefore, there is some support for the hypotheses that children who take part in the Read to Me! program will have increased enjoyment of reading and looking at books.

When results were reviewed for the intervention group, the increase in the number of families with library cards, the increased use of libraries, slight increase in the number of times the child visited the library and was observed looking at books, the number of children who had received books since taking part in the Read to Me! program supports the hypothesis that the Read to Me! program contributed to an increase in literacy related activities.

Comparison of data collected from staff at the beginning of the program to data collected from staff at the end revealed that there was a significant reduction in inquiries from parents asking how long before their child would be seen by a doctor. This supports the hypothesis that the program would decrease questioning of staff about wait times.

A majority of parents in the intervention group indicated that reading and looking at books was a favourite activity of their child and parents observed their child looking at books on a regular basis. In addition, reading was chosen as the parent's favourite indoor activity to do with their child. The majority of parents in the intervention group were reading to their child frequently during the course of a week. The intervention, however, did not increase the frequency with which parents identified reading as a favourite activity. This may be due, in part, to a ceiling effect. Eighty percent of the parents indicated that reading was a preferred activity in the initial interview. These parents also believe that reading and looking at books should begin in the child's first year and a significant number of children had received at least one book since taking part in the Read to Me! program. These high rates of existing literacy activities and the very brief nature of the intervention may be factors in the overall outcomes.

The results demonstrate that the majority of parents in both the intervention and control group report reading to their child almost daily. By ordering the questions as they appeared it was hoped that social desirability would be reduced. Given the nature of the questions, however, responding in a socially desirable manner remains quite likely and this may have contributed to the lack of significant differences between the groups. Parents may feel that reading to their child daily is what they should do and that reading

should be the favourite activity to do with their child and this may have been reflected in their responses.

The majority of literacy intervention programs offered have been school based. Offering a program that helps to introduce children to the joys of books at an earlier age may result in the emergence of an emphasis on literacy at an earlier age. When parents leave with a book to take home and a list of age appropriate books that can be obtained at the local library this is an added reminder of the importance of reading to their child.

The program provided enjoyment for both parents and children who were waiting for medical attention. The handout on reading tips and the suggestion of age appropriate books served as a reference for parents. Sharing books with children in the emergency department can help to reassure a child who is anxious. Parents and children enjoy and appreciate receiving the gift book. Reading aloud to children can also help to develop a love of books and learning. More intensive interventions such as those available through the Reach Out and Read program may be required for more identifiable increases in family literacy practices.

The volunteers played an important role in the success of the program. The children enjoyed interactions with the enthusiastic readers and repeat patients would frequently ask if there was a reader present today. One of the greatest benefits was that parents did see that it is never too early to begin reading to their child and they had the opportunity to have someone model reading with young children for them.

According to Needlman, Klass & Zuckerman (2002) reading programs offered in medical settings help to reinforce for parents the message about the importance of books

for young children. Although there were no significant changes in the amount of reading taking place from initial to subsequent interview for the intervention group, there was an increase in the number of families who had obtained library cards and there was an increase in library use by parents and children. Children at follow-up were observed looking at books more frequently and many of these children had received at least one book since taking part in the Read to Me! program. This would indicate that the program did help to reinforce for parents the message about the importance of books for young children.

Sanders, Gershon, Huffman & Mendoza (2000) and Needlman (1991) suggested that families who received even one book from the physician were more likely to report sharing books with their child than those who did not. Despite the fact that the book was given by the researcher instead of a physician there was still an increase in book sharing reported by the intervention group at the subsequent interview. When the intervention group was compared to the control group it was evident that the intervention group was reading more to their children when the initial interview was carried out and in the subsequent interview than parents in the control group. Nevertheless, as pointed out by Jones, Franco, Metcalf, Popp, Staggs & Thomas (2000), the act of giving a book to the family will ensure that some information will be transferred about the importance of sharing books and this increases the likelihood that parents will engage their child in literacy activities at home.

It was evident in both the control and intervention group that the majority of parents are reading to their children almost daily or at least 2 to 3 times per week.

Needlman, Fried, Morley, Taylor & Zuckerman (1991) report that the literacy rate for children improves if their parents read to them and hospitals or clinics distributing developmentally appropriate books to families can help to facilitate this process. Although it has been shown that parents are reading to their children and books were distributed through the Read to Me! program at the IWK Health Centre, without following these children over time it is difficult to know if their literacy rate improves as a result of this intervention. Needlman and Silverstein (2004) recommend a longitudinal study of children in such programs to establish long-term effects.

The research shows that the children in this study are being read to daily or at least weekly. Lipps and Yiptong-Avila (1999) point out that young children aged 2 to 3 who are read to several times a day do better in kindergarten when they are 4-or 5-years-old than children whose families read to them only a few times a week or less frequently. This may indicate that in order to have an impact on their academic skills that these children need to be read to more frequently. Lipps & Yiptong-Avila also suggest that children who are read to daily are more likely to be described by their teachers as being near the top of their class in a variety of skills which include learning abilities, communication skills, math skills and receptive vocabulary, indicating that school success in the later years is likely influenced by sharing books and reading with children in the early years.

Needlman, Fried, Morley, Taylor and Zuckerman (1991) point out that research in education demonstrates that parents' reading to children does allow them to become literate more easily. This is also supported by Golova, Alario, Viver, Rodriquez and High

(1999) who suggest that reading aloud and early experiences with books are instrumental in preparing children for success in learning to read. Future research could follow these children longitudinally to determine the cumulative effect of such an early intervention on subsequent school success.

Wade and Moore (1998), reporting on the Bookstart research, suggest that children achieve more when parents participate in the children's development and learning. This holds true for the parents who took part in this study as is evidenced by the amount of book sharing, playing games and library visits.

An important component to this intervention was that, regardless of the age of the child, parents became aware that their child was at an age where they could enjoy books. This point was made by Needlman et al. (1991) as one of the benefits of reading programs being offered in medical settings.

The research demonstrated that the Read to Me! program was well received by staff. Atkinson, Parks, Cooley & Sarkis (2002) reported that in some cases patients inappropriately use the services of emergency departments which can add additional burden to staff. In this case it appears that the operation of the program was beneficial to both families and staff. The feedback from staff about the program was very encouraging and positive. When the Read to Me! program was in operation in the emergency department, staff reported a decrease in questions from parents concerning wait times and most reported that families appeared more content, patient and less stressed when a volunteer reader was present.

Planners of emergency department programs could consider the results of this study when contemplating the effect of wait times perceived by the public. The study provided evidence that wait times seemed shorter when a volunteer reader was present. The study results might well lead to a conclusion that a Read to Me! program can be justified solely on the impact that it has on emergency department operations and morale.

Based on the feedback from parents who took part in the program in the emergency department there is evidence that the program did have an impact. Families enjoy having a volunteer reading while they wait for medical attention. The program helps to increase the awareness of the importance of reading to young children and the handout outlines reading tips for families and recommends books for various ages. The families in the intervention group received a book to take home and for families in the control and intervention group who had previously taken part in the newborn Read to Me! program this served as a second intervention.

A potential limitation of this study may exist in that there was a reliance on parental recall to establish the frequency of reading, looking at books and library use. Therefore, recall and reporting biases are potentially problematic in this study as all outcome measures for the control and intervention group were based on data obtained by parental report. As well, parents who were more supportive of reading to their child and already encourage literacy activities may be more likely to recall observing the volunteer readers in the emergency department waiting room.

Exposure to the volunteer reader was not under experimental control. In some cases the child was called to the treatment room before a first story was finished while in

other cases a child could have been read several stories before being seen. While all intervention participants received the gift book and information package, the inability to control exposure to the reading portion of the treatment may have limited the parents' exposure to the modeling aspect of the intervention.

Another limitation of the study may have been that the handout on the benefits of reading to young children and the age appropriate book list were given to parents by the volunteer reader and the book by the researcher. In most interventions of this type, medical staff including nurse practitioners and pediatricians gives the books to the family and provide guidance on how best to use these. The potential impact of a medical professional providing information on early literacy should be explored.

Another potential limitation of the study was that the questions were not open-ended. However, parents were given the option to choose "other" as a response so participants could respond with items not listed. A more detailed response may have allowed parents to elaborate on their literacy activities with their children and, as such, may help to address the social desirability issue. Also, participants could have been asked to rank their child's favorite activities rather than to only identify them, thus providing data that may have been more discriminating.

Finally, the demographic variables that were found to be represented differently in the intervention and control groups should be either controlled or formally introduced into the experimental design. The potential impact of these, and perhaps other, demographic variables could help to understand not only the immediate impact of this intervention, but also any long term effects.

Despite the limitations in this study, the results support the continuation of the Read to Me! program in the emergency department. The program should be extended to cover a broader age range. Having books available for children from age six to age twelve would be a positive next step for the program. It was the researcher's observation that many children in this age range enjoyed hearing the stories and also took turns reading. Also, additional training could be made available to those readers who are less skilled in engaging families and enticing them to take part in the program. This would help to maximize the time that volunteers spend reading during their shifts and has the potential to reach more children. In future research, a longitudinal study to follow children who take part in the program would be recommended. These children could be compared with children who did not take part in the program to help determine whether or not the program has long-term benefits for children and if this intervention impacted on their reading and school achievement.

In order to address the low literacy of some parents, the training for the volunteer readers should include recommendations to discuss with each family the idea of inventing their own stories and the benefits of looking at books and naming objects. This would need to be discussed with all families, as it would not be known who the families are with low literacy. Most importantly, the televisions in the emergency department should be turned off while the volunteer reader is present. If both televisions cannot be turned off, at least the one closest to the reading corner needs to be.

A follow-up visit to families in their home would enhance the intervention with guidance and a book offered by trained volunteers or staff. Future research that includes

home visitations and direct counts of children's books in the home would give a better idea of what is happening in this setting. The researcher would have the opportunity to observe families rather than rely on parental reports. It is also recommended that books given to families represent various languages and cultures.

In programs of this type, it is recommended that a doctor or nurse practitioner give the book to the family and talk to the family about the benefits of reading to young children. Previous research found that pediatric providers are important sources of advice and support for families and that parents are more apt to carry out recommendations for reading if given by medical staff. A more intense intervention such as that offered through Reach Out and Read, a national pediatric literacy program, could improve the outcome for families. Reach Out and Read programs seek to make early literacy a standard part of pediatric primary care. At well child visits or pediatric check-ups from six months to five years of age, pediatricians encourage parents to read aloud to their young children and give books to their patients to take home. Parents are advised that reading aloud is the most important thing that they can do to help their children enjoy books and prepare them to start school ready to learn. It does appear that the intensity of the program is important to get the desired results.

This research demonstrates that satisfaction with overall care can be enhanced when a program such as Read to Me! is offered in the emergency department, therefore, this is an area where additional research could be carried out.

In conclusion, results of this study provide evidence for continuation of the Read to Me! program. Giving a book to the family must be a fundamental part of this

intervention. The presence of the book in the home may serve as a further reminder of the benefits of reading and looking at books, strengthening the message that reading aloud to young children is important.

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Table 1

Participant Demographics for Intervention and Control Group

		Control group	Intervention group
Median age		0-12 months	3 to 4 years
Daycare or preschool attendance		25%	49%
Primary language	English	95%	95%
	French	1%	0%
	Spanish	0%	1%
	Arabic	1%	4%
	Other	3%	0%
Education	Postgraduate	10%	10%
	Undergraduate	15%	27%
	College (one year)	36%	30%
	High School	18%	19%
	GED	3%	2%
	Some High School	17%	9%
	Middle School	1%	1%

Table 1 (continued)

Participant Demographics for Intervention and Control Group

		Control group	Intervention group
Occupation	Homemaker	41%	26%
	Service Worker	16%	15%
	Clerical/Sales	12%	11%
	Technician	2%	2%
	Manager	2%	2%
	Professional	20%	28%
	Other	6%	13%
Adults living home	one	17%	9%
	two	75%	79%
	three	16%	9%
	four	3%	2%
	five or more	0%	2%
Children living home	one	42%	40%
	two	35%	50%
	three	16%	9%
	four	6%	1%
	five or more	1%	0%

Table 2

Participant Demographics for Staff

Number interviewed	27			
Positions included:				
Staff nurse				
Ward clerk				
Ward aid				
Registration/admitting clerk				
Administrative assistant				
Employment duration (years)	10+	5-10	1-5	<1
	19%	15%	41%	25%

Table 3

Analysis of the Treatment Condition by Demographic Variable Interaction

	Pre Survey	Post Survey
Parent favourite activity		
Condition by age	χ^2 (24) = 29.726, p = .194	χ^2 (24) = 23. 287, p = .503
Condition by daycare	χ^2 (4) = 7.277, p = .122	χ^2 (4) = 2.306, p = .680
Condition by NRTM	χ^2 (8) = 2.161, p = .976	χ^2 (8) = 3.996, p = .857
Frequency child read to		
Condition by age	χ^2 (6) = 4.624, p = .543	χ^2 (6) = 10.574, p = .102
Condition by daycare	χ^2 (4) = 2.326, p = .127	χ^2 (4) = 1.513, p = .679
Condition by NRTM	χ^2 (8) = 3.281, p = .916	χ^2 (8) = 1.722, p = .423
Library use by child		
Condition by age	χ^2 (12) = 18.210, p = .109	χ^2 (12) = 10.474, = .574
Condition by daycare	χ^2 (4) = 1.790, p = .409	χ^2 (4) = .663, p = .718
Condition by NRTM	χ^2 (8) = 3.999, p = .406	χ^2 (8) = 2.407, p = .879
Library use by parent		
Condition by age	χ^2 (12) = 12.198, p = .430	χ^2 (12) = 13.438, p = .338
Condition by daycare	χ^2 (4) = 1.282, p = .527	χ^2 (4) = 1.084, p = .582
Condition by NRTM	χ^2 (8) = 1.084, p = .582n	χ^2 (8) = 2.778, p = .596m
Age to read to		
Condition by age	χ^2 (18) = 14.088, p = .723	χ^2 (18) = 17.812, p = .122
Condition by daycare	χ^2 (4) = 5.554, p = .135	χ^2 (4) = 2.582, p = .275
Condition by NRTM	χ^2 (8) = 6.649, p = .575	χ^2 (8) = 4.174, p = .243
Child's Favourite Activity		
Condition by age		
Game	χ^2 (6) = 9.801, p = .133	χ^2 (6) = 2.654, p = .851
TV	χ^2 (6) = 2.788, p = .835	χ^2 (6) = 3.961, p = .682
Book	χ^2 (6) = 1.428, p = .964	χ^2 (6) = 6.453, p = .374
Toy	χ^2 (6) = 1.516, p = .281	χ^2 (6) = 3.482, p = .746
Other	χ^2 (6) = 3.846, p = .441	χ^2 (6) = 5.997, p = .306

Table 3 (continued)

Analysis of the Treatment Condition by Demographic Variable Interaction

	Pre Survey	Post Survey
Condition by daycare		
Game	χ^2 (2) = 3.185, p = .074	χ^2 (2) = .113, p = .737
TV	χ^2 (2) = .109, p = .741	χ^2 (2) = .572, p = .449
Book	χ^2 (2) = .009, p = .923	χ^2 (2) = 806, p = .347
Toy	χ^2 (2) = 1.555, p = .212	χ^2 (2) = .209, p = .647
Other	χ^2 (2) = 2.528, p = .112	χ^2 (2) = .060, p = .806
Condition by NRTM		
Game	χ^2 (2) = 1.833, p = .400	χ^2 (2) = 1.239, p = .538
TV	χ^2 (2) = 1.822, p = .402	χ^2 (2) = 2.267, p = .322
Book	χ^2 (2) = .281, p = .869	χ^2 (2) = 2.872, p = .238
Toy	χ^2 (2) = 1.463, p = .481	χ^2 (2) = .956, p = .620
Other	χ^2 (2) = 3.897, p = .143	χ^2 (2) = 1.810, p = .405

Table 4

Analysis of the Treatment Condition by Pre/Post Survey Interaction

Parent Favourite Activity	
Playing Games	$\chi^2(3) = 1.225, p = .747$
Watching TV	$\chi^2(1) = 0.000, p = 1.00$
Reading	$\chi^2(4) = 7.859, p = .097$
Toys	$\chi^2(3) = 3.549, p = .314$
Other	$\chi^2(3) = 1.579, p = .664$
Frequency Child Read To	
Almost Daily	$\chi^2(2) = 1.475, p = .478$
Weekly	$\chi^2(2) = 1.679, p = .432$
Library Use By Child	
Weekly	$\chi^2(3) = 2.093, p = .533$
Monthly	$\chi^2(3) = 5.014, p = .171$
Seldom	$\chi^2(2) = 3.451, p = .178$
Library Use By Parent	
Weekly	$\chi^2(2) = 0.236, p = .889$
Monthly	$\chi^2(2) = 4.723, p = .094$
Seldom	$\chi^2(2) = 6.051, p = .049$
Child Looks At Books	
Daily	$\chi^2(3) = 5.854, p = .119$
Weekly	$\chi^2(3) = 7.173, p = .067$
Monthly	$\chi^2(1) = 1.875, p = .171$
Child's Favourite Activity	
Game	$\chi^2(3) = 2.972, p = 226$
TV	$\chi^2(3) = 4.893, p = .180$
Book	$\chi^2(3) = 7.260, p = .064$
Toy	$\chi^2(3) = 5.074, p = .166$
Other	$\chi^2(1) = 2.222, p = .136$

Table 5

Pre Survey and Post Survey Percentages and Results for the Intervention and Control Groups

	Intervention			Control				
Variable	% Pre Survey	% Post Survey	Intervention Pre/Post Comparison	% Pre Survey	% Post Survey	Control Pre/Post Comparison	Pre Survey Int/Cont Comparison	Post Survey Int/Cont Comparison
Reading age								
Pre-birth	1	0		2	0		$\chi^2 = 84.814$, $p < .000$	
0 to12 Months	90	87		89	91			
1 to 2 years	7	12		7	5			
2 to 3 Years	2	1		1	2			
3 to 4 Years	0	0		1	2			
4 to 5 Years	0	0		0	0			
Other	0	0		0	0			

Table 5 (continued)

Pre Survey and Post Survey Percentages and Results for the Intervention and Control Groups

	Intervention			Control				
Variable	% Pre Survey	% Post Survey	Intervention Pre/Post Comparison	% Pre Survey	% Post Survey	Control Pre/Post Comparison	Pre Survey Int/Cont Comparison	Post Survey Int/Cont Comparison
Favourite activity with child								
Books	52.6	54	at pre books most popular $\chi^2 = 83.807$, $p<.000$; at post books most popular $\chi^2 = 78.40$, $p < .000$	41.2	46.6	at pre books most popular $\chi^2 = 48.018$, $p <.000$; at post books most popular $\chi^2 = 61.223$, $p<.000$		
Games	8.8	14		8.8	14.6			
TV/video	4.4	2		4.4	1.9			
Toys	14	16		24.6	26.2			
Other	20.2	14		21.1	10.7			

Table 5 (continued)

Pre Survey and Post Survey Percentages and Results for the Intervention and Control Groups

	Intervention			Control				
Variable	% Pre Survey	% Post Survey	Intervention Pre/Post Comparison	% Pre Survey	% Post Survey	Control Pre/Post Comparison	Pre Survey Int/Cont Comparison	Post Survey Int/Cont Comparison
Frequency child read to								
Almost daily	90.4	94		87.7	79.6			at post sig more int parents read to child daily $\chi^2 = 10.037$, p = .018
Weekly	9.6	6		7.9	16.5			
Rarely or never	0	0		4.4	3.9			

Table 5 (continued)

Pre Survey and Post Survey Percentages and Results for the Intervention and Control Groups

	Intervention			Control				
Variable	% Pre Survey	% Post Survey	Intervention Pre/Post Comparison	% Pre Survey	% Post Survey	Control Pre/Post Comparison	Pre Survey Int/Cont Comparison	Post Survey Int/Cont Comparison
Child looks at books								
Almost daily	88.6	80		76.3	78.6		at pre int group sig greater in 'almost daily' category and sig fewer in 'never' category, $\chi^2 = 18.31$, $p < .000$	at post int group sig fewer in 'never' category, $\chi^2 = 7.697$, $p = .05$
Weekly	7	17		7	12.6			
Monthly	1.8	3		1.8	1.9			
Never	2.7	0		14.9	6.8			
New Techniques								
Yes	0	15		0	0			
No	0	84		0	0			
Don't know or not sure	0	1		0	0			

Table 5 (continued)

Pre Survey and Post Survey Percentages and Results for the Intervention and Control Groups

	Intervention			Control				
Variable	% Pre Survey	% Post Survey	Intervention Pre/Post Comparison	% Pre Survey	% Post Survey	Control Pre/Post Comparison	Pre Survey Int/Cont Comparison	Post Survey Int/Cont Comparison
Library use by child								
2-3 times per month or more	49.1	51		30.7	43.6		at pre sig more int children 2-3 times per month or more and sig. more control children taken rarely or never, $\chi^2 = 10.842$, $p = .013$	at post sig more int children taken 2-3 times per month or more and sig. more control children are taken rarely or never, $\chi^2 = 64.675$, $p < .000$
Less than once per month	19.3	25		21.1	19.4			
Rarely or never	31.6	24		48.2	37			

Table 5 (continued)

Pre Survey and Post Survey Percentages and Results for the Intervention and Control Groups

	Intervention			Control				
Variable	% Pre Survey	% Post Survey	Intervention Pre/Post Comparison	% Pre Survey	% Post Survey	Control Pre/Post Comparison	Pre Survey Int/Cont Comparison	Post Survey Int/Cont Comparison
Library use by parent								
2-3 times per month or more	48.2	65		35.1	43.7			at post sig more int parents use the library 2-3 times per month or more, χ^2 11.222, p - .004
Less than once per month	24.6	11		25.5	26.2			
Rarely or never	27.2	24		39.4	30.1			
Parents observing readers								
Yes	0	95		0	0			
No	0	3		0	0			
Don't know or not sure	0	2		0	0			

Table 5 (continued)

Pre Survey and Post Survey Percentages and Results for the Intervention and Control Groups

	Intervention			Control				
Variable	% Pre Survey	% Post Survey	Intervention Pre/Post Comparison	% Pre Survey	% Post Survey	Control Pre/Post Comparison	Pre Survey Int/Cont Comparison	Post Survey Int/Cont Comparison
Parents with library card								
Yes	77.2	80		72.8	76.7			
No	22.8	20		27.2	23.3			
Participation in newborn pgm								
Yes	18.4	0		53.5	0		sig. more of the control group took part in the infant read to me, $\chi^2 = 30.353$, $p < .000$	
No	80.7	0		45.6	0			
Don't know or not sure	0.9	0		0.9	0			

Table 5 (continued)

Pre Survey and Post Survey Percentages and Results for the Intervention and Control Groups

	Intervention			Control				
Variable	% Pre Survey	% Post Survey	Intervention Pre/Post Comparison	% Pre Survey	% Post Survey	Control Pre/Post Comparison	Pre Survey Int/Cont Comparison	Post Survey Int/Cont Comparison
Questioning of wait time								
Parents questioning wait time	77.8	40.7	sig. reduction $\chi^2 = 7.112$, $p = .029$					
Rating of Read to Me!								
Excellent	0	68	sig. number rated the program 'excellent' or 'very good', $\chi^2 = 130.80$, $p < .000$	0	0			
Very good	0	27		0	0			
Good	0	5		0	0			
Poor	0	0		0	0			
Don't know or not sure	0	0		0	0			

Table 5 (continued)

Pre Survey and Post Survey Percentages and Results for the Intervention and Control Groups

	Intervention			Control				
Variable	% Pre Survey	% Post Survey	Intervention Pre/Post Comparison	% Pre Survey	% Post Survey	Control Pre/Post Comparison	Pre Survey Int/Cont Comparison	Post Survey Int/Cont Comparison
Recollection of reader								
Yes	0	99		0	0			
No	0	1		0	0			
Don't know or not sure	0	0		0	0			
Received books since								
Yes	0	74	sig number received books since, $\chi^2 = 23.04$, $p < .000$	0	0			
No	0	26		0	0			
Don't know or not sure	0	0		0	0			

Table 5 (continued)

Pre Survey and Post Survey Percentages and Results for the Intervention and Control Groups

	Intervention			Control				
Variable	% Pre Survey	% Post Survey	Intervention Pre/Post Comparison	% Pre Survey	% Post Survey	Control Pre/Post Comparison	Pre Survey Int/Cont Comparison	Post Survey Int/Cont Comparison
Three favourite activities of child								
Books	78.9	70.2		78.9	71.9			
Games	28.1	36		33.3	44.7			
TV/video	67.5	51.8		48.2	46.5			
Toys	34.2	65.8		58.8	78.9			
Other	26.3	36.8		23.7	27.2			

Figure Caption

Figure 1. Frequency of participation in Newborn Read to Me! Program reported by intervention and control group on the pre and post surveys.

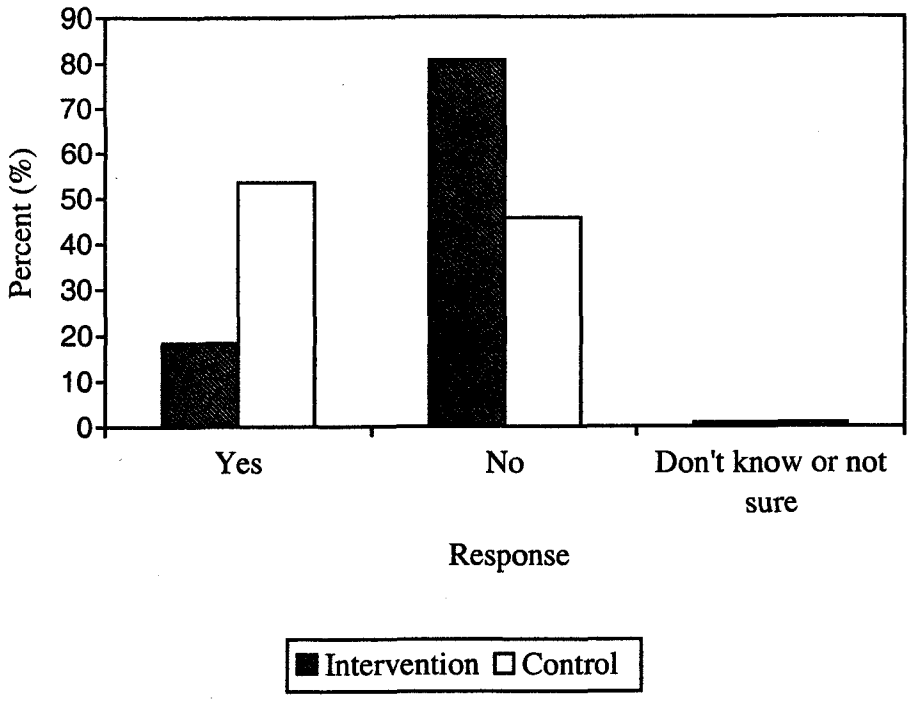


Figure Caption

Figure 2. Three favorite activities of child reported by intervention and control group on pre and post survey.

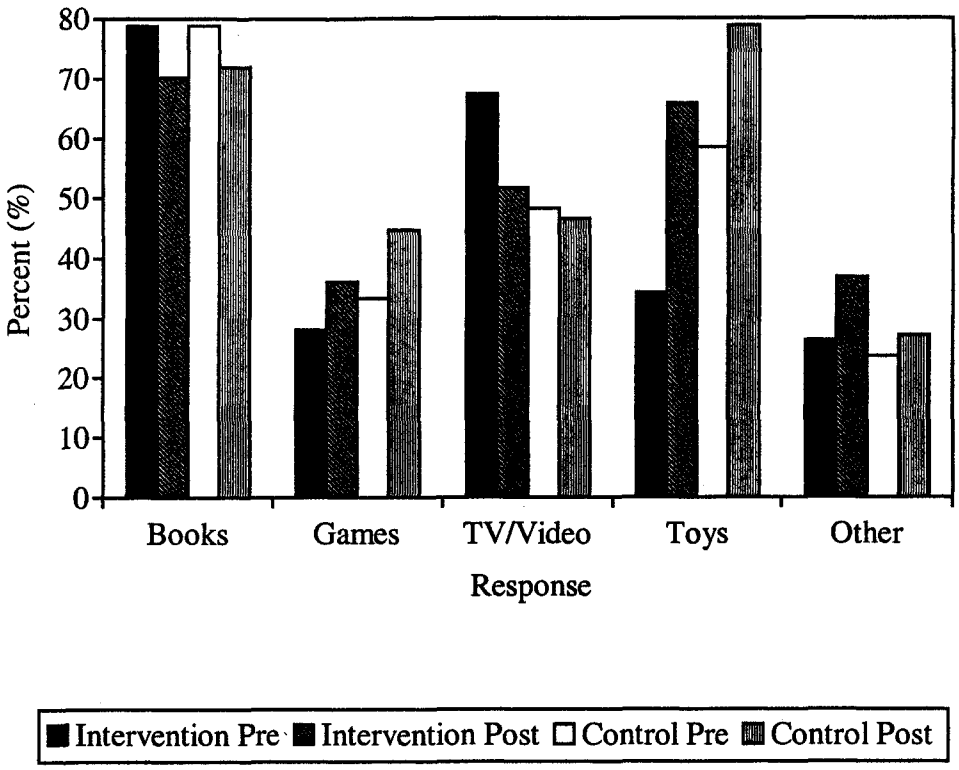


Figure Caption

Figure 3. Favorite activity of parent with child reported by intervention and control group on the pre and post surveys.

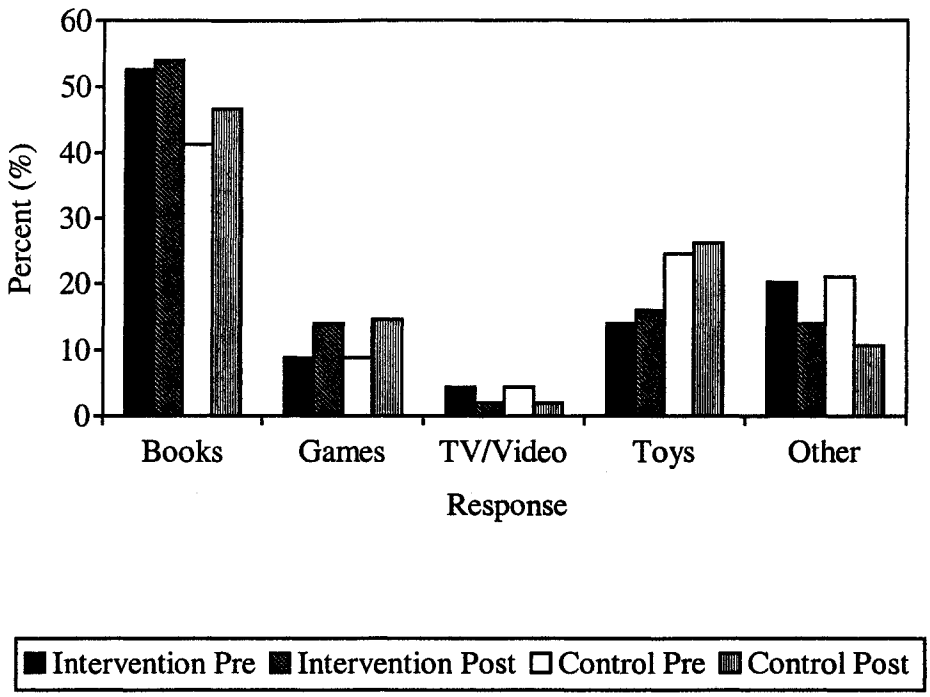


Figure Caption

Figure 4. Age to begin reading to child reported by intervention and control group on the pre and post surveys.

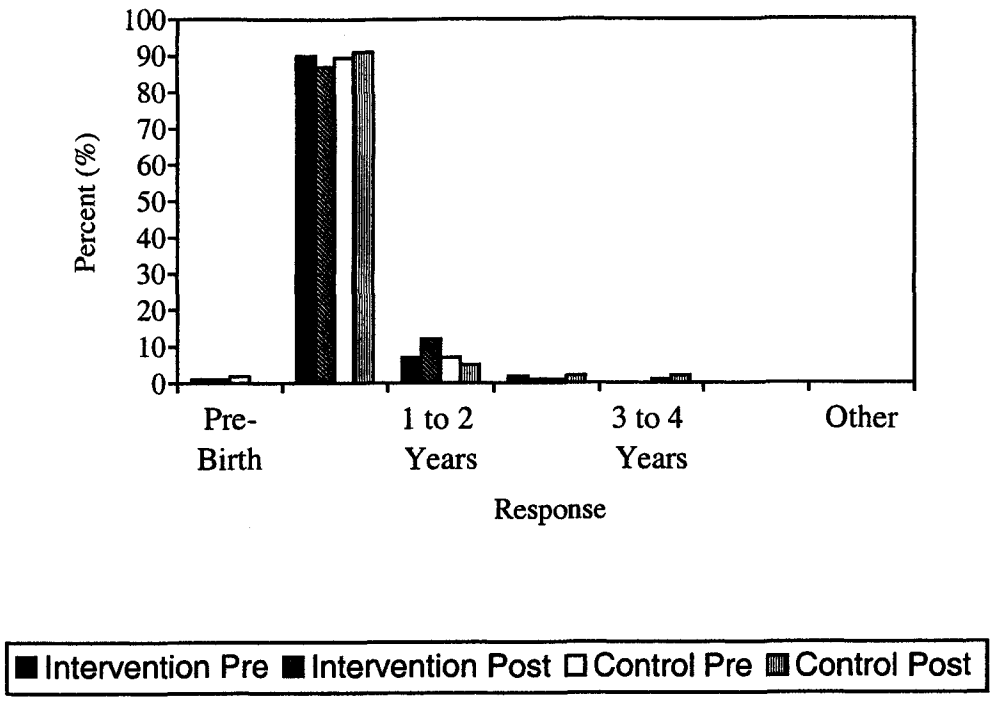


Figure Caption

Figure 5. Frequency child is read to reported by intervention and control group on the pre and post surveys.

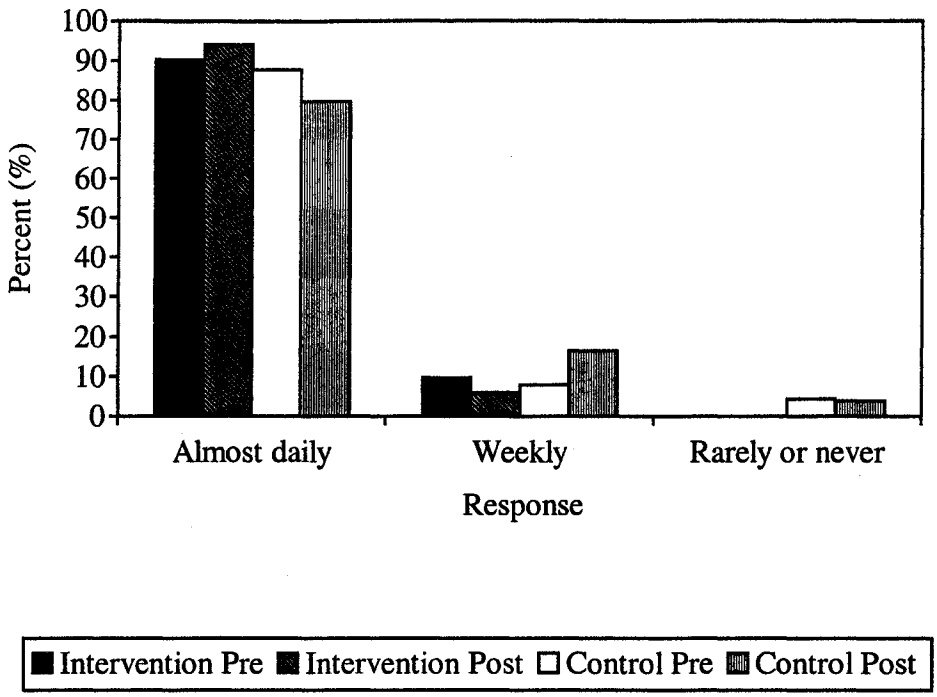


Figure Caption

Figure 6. Frequency child looks at books reported by intervention and control groups on the pre and post intervention surveys.

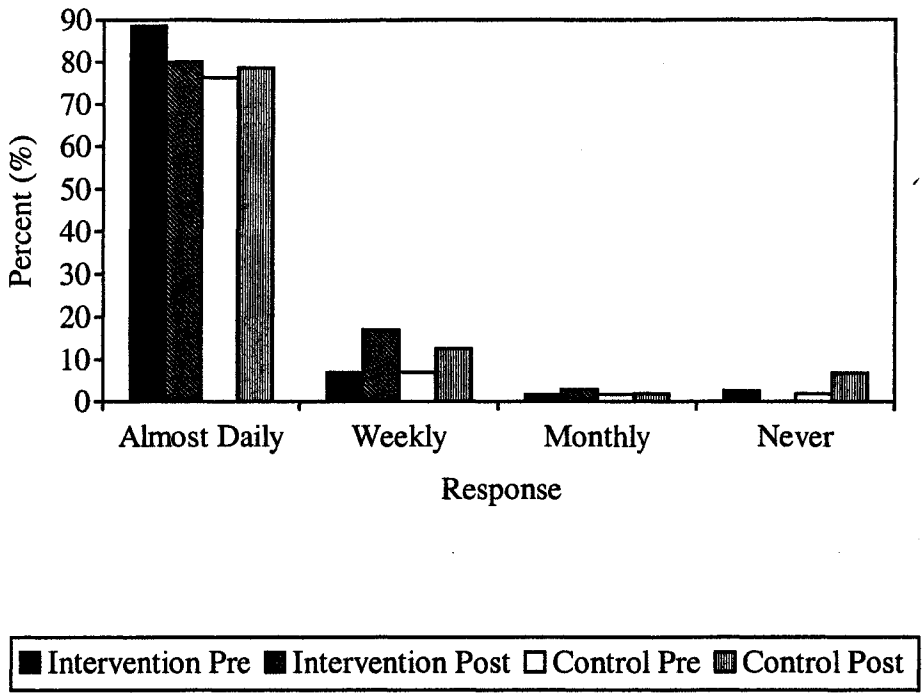


Figure Caption

Figure 7. Frequency of parents having a library card reported by intervention and control group on the pre and post surveys.

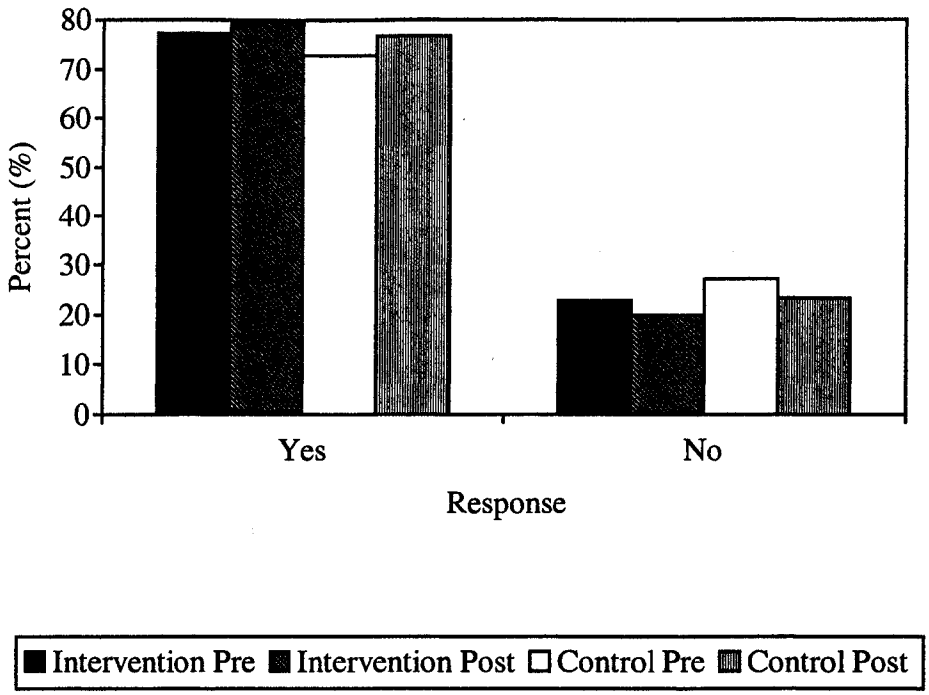


Figure Caption

Figure 8. Frequency of library use by parent reported by intervention and control group on the pre and post surveys.

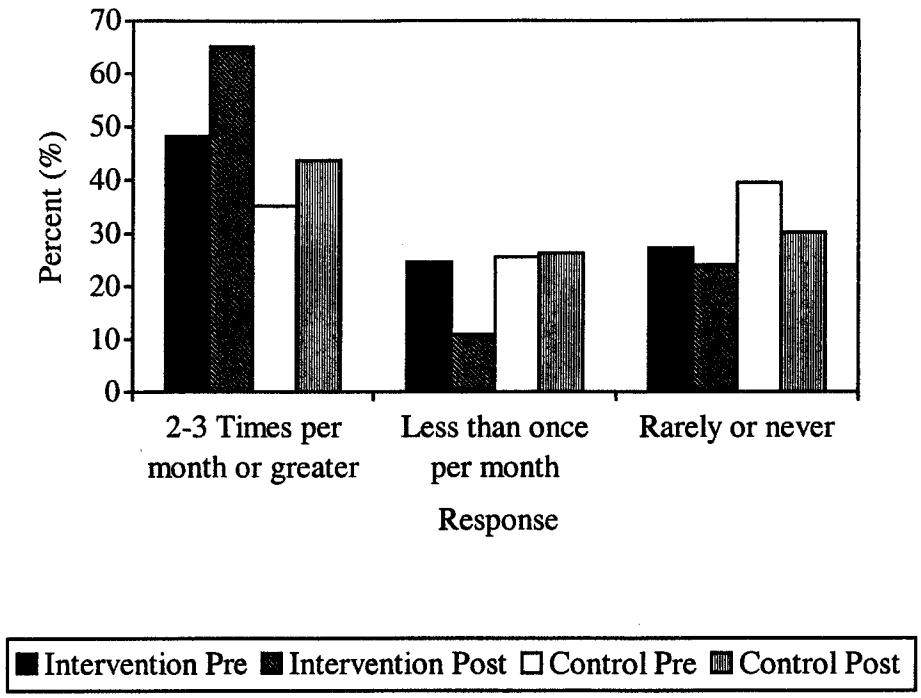


Figure Caption

Figure 9. Frequency of library use by child reported by intervention and control group on the pre and post surveys.

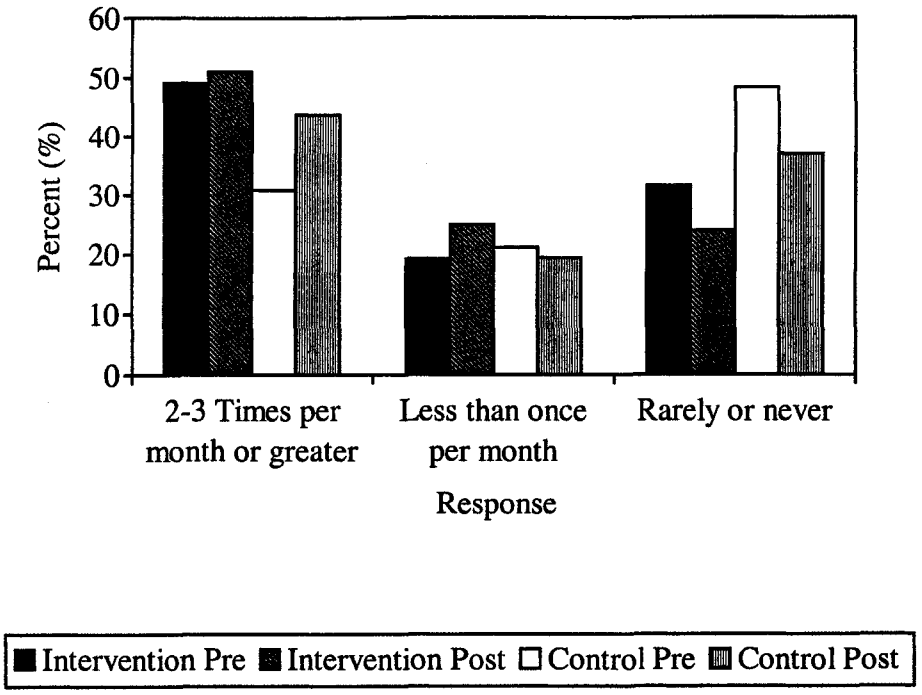


Figure Caption

Figure 10. Frequency of parents observing readers reported by intervention group.

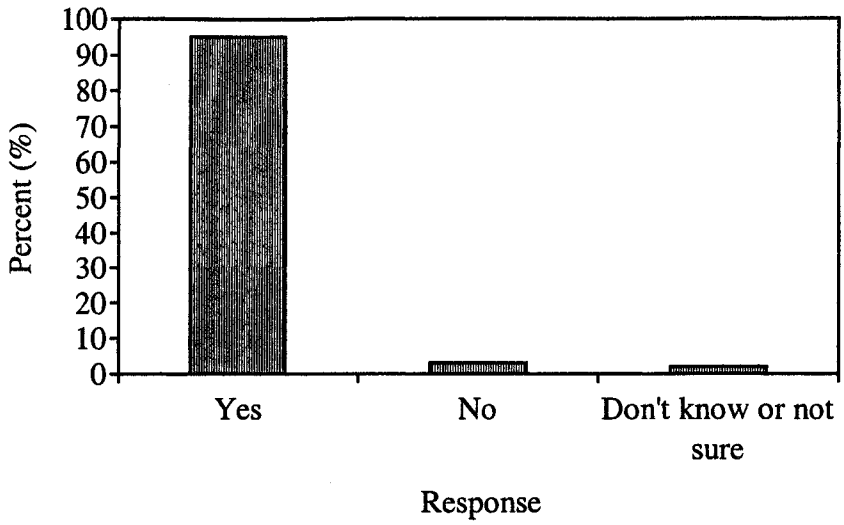


Figure Caption

Figure 11. Frequency learning new techniques to read to child reported by intervention group.

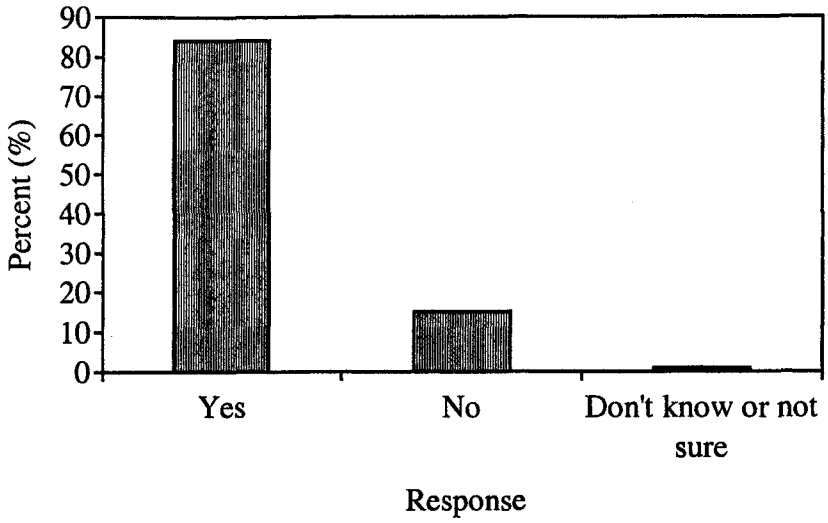


Figure Caption

Figure 12. Frequency books received since Read to Me! reported by intervention group.

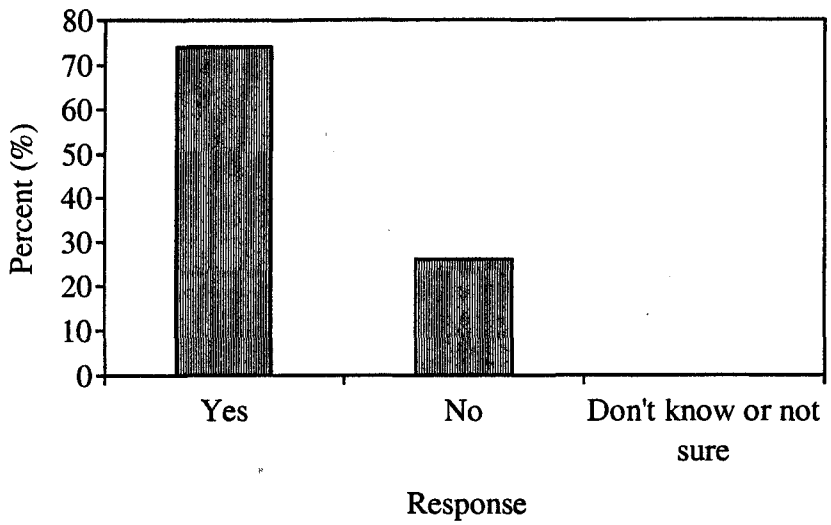


Figure Caption

Figure 13. Frequency of questions about wait time reported by staff.

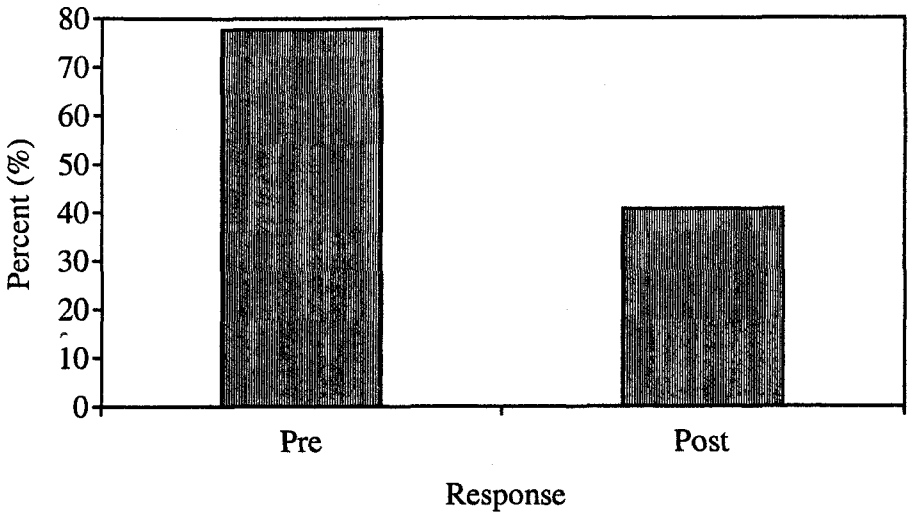


Figure Caption

Figure 14. Frequency parent recalled volunteer reading to child reported by intervention group.

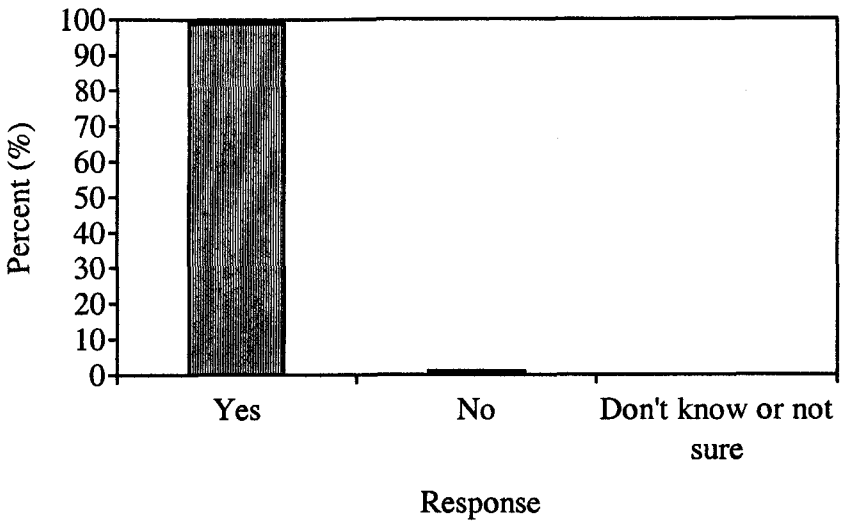
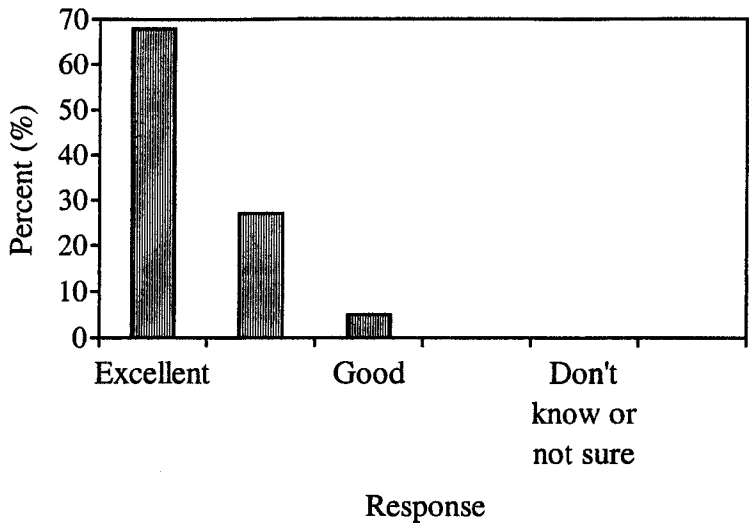


Figure Caption

Figure 15. Rating of Read to Me! Program at the IWK Emergency Department reported by intervention group.



Appendix A – Information and Consent Forms

Control Group Information and Consent Form
Intervention Group Information and Consent Form
Staff Information and Consent Form

Control Group Information and Consent Form

Study Title: The Impact of the Read to Me! Program in the Emergency Department of the IWK Health Centre on Family Literacy Practices

Investigator: Charlene Latimer MacDonnell, Graduate Student (MA Thesis) Department of Child & Youth Study, Mount Saint Vincent University

Site Investigator: Dr Richard B. Goldbloom

Sponsor: Not Applicable

Introduction

You are being invited to take part in the research study named above. It is important that you understand the purpose of the study, how it may affect you, the risks and benefits of taking part and what you will be asked to do, before you decide if you want to take part. This information and consent form is to help you decide if it is in your best interest to take part in this study.You do not have to take part in this study. Taking part is entirely voluntary (your choice). If you have any questions that this form does not answer, the study Investigator will be happy to give you further information.

Purpose of the Study

The purpose of the study is to document the range of reading practices of families that visit the emergency department of the IWK Health Centre.

The study is under the direction of Dr. Richard Goldbloom, at the IWK Health Centre.

Study Design

Approximately four hundred and fifty participants will be interviewed as part of the study. Participants will be asked to take part in a telephone interview approximately six to eight weeks after the initial interview.

Taking part in this study will involve some of your time to answer survey questions. You will be asked to be interviewed about reading with children.

Potential Harms

There are no anticipated harms.

Potential Benefits

There are no anticipated benefits.

Alternatives to the Study

Not Applicable

Withdrawal from Participation
Participation in the study is entirely voluntary (your choice). You may decide not to enroll or you may withdraw from the study at any time. This will not affect your child's care by the doctor or your care at the IWK Health Centre in any way. If the study is changed in any way which could affect your decision to continue to participate, you will be told about the changes and you may be asked to sign a new informed consent.

Costs and Reimbursement
Participation in this study will not result in any expenses to you.

Confidentiality
Any information that is learned about you will be kept private. If the results of the study are published the publication will not contain any information which would identify you. Study records will be stored in a locked area and will be kept for five years after publication of study results.

Research Rights
Your signature on this form will show that you have understood to your satisfaction the information about the research study.

By signing this document you are not waiving any of your legal rights, nor are you releasing the investigator(s), institution(s) and/or sponsor(s) from their legal and professional responsibilities.

If you have any questions at any time during or after the study about these legal rights or about research in general and you would like an independent opinion, you may contact the Research Office of the IWK Health Centre at 470-8765, Monday to Friday between 9 am to 5 pm.

Following completion of the study, study results can be made available to you upon request. Please contact the researcher, Charlene Latimer MacDonnell, at 423-5234 if you wish to have a copy of the results.

Contact Person
If you have any questions or concerns following your enrollment, you may call Charlene Latimer MacDonnell at 423-5234.

Version 05 Dec. 2002..Page 2/3

Study Title: The Impact of the Read to Me! Program in the Emergency Department of the IWK Health Centre on Family Literacy Practices

Participant ID:
Participant INITIALS:

Participant Consent

I have read or had read to me this information and consent form and have had the chance to ask questions which have been answered to my satisfaction before signing my name. I understand the nature of the study. I understand that I have the right to withdraw from the study at any time without affecting my care in any way. I have received a copy of the Information and Consent Form for future reference. I freely agree to participate in this research study.

Name of Participant: (Print)

Participant Signature:

Date: _____ Time:_____

STATEMENT BY PERSON PROVIDING INFORMATION ON STUDY

I have explained the nature and demands of the research study and judge that the participant named above understands the nature and demands of the study.

Name:(Print)

Signature: _____ Position: _____

Date: _____ Time:_____

STATEMENT BY PERSON OBTAINING CONSENT

I have explained the nature of the consent process to the participant and judge that they understand that participation is voluntary and that they may withdraw at any time from participating.

Name (Print)

Signature: _____ Position: _____

Date: _____ Time:_____

Other people present at time of signing:

Name (Print)

Signature: _____ Position: _____

Date: _____ Time:_____

Version 05 Dec. 2002..Page 3/3

Intervention Group Information and Consent Form

Study Title: The Impact of the Read to Me! Program in the Emergency Department of the IWK Health Centre on Family Literacy Practices

Investigator: Charlene Latimer MacDonnell, Graduate Student (MA Thesis) Department of Child & Youth Study, Mount Saint Vincent University

Site Investigator: Dr Richard B. Goldbloom

Sponsor: Not Applicable

Introduction

You are being invited to take part in the research study named above. It is important that you understand the purpose of the study, how it may affect you, the risks and benefits of taking part and what you will be asked to do, before you decide if you want to take part. This information and consent form is to help you decide if it is in your best interest to take part in this study. You do not have to take part in this study. Taking part is entirely voluntary (your choice). If you have any questions that this form does not answer, the study Investigator will be happy to give you further information.

Purpose of the Study

The purpose of the study is to see if reading aloud to children, giving information to parents on reading to children and a book to take home influences reading patterns of families. More specifically, the study will determine if changes occur to reading patterns for families with children aged birth through six years who participate in a study where volunteer readers read to children, parents are shown how to read aloud to their children, information is provided to parents/guardians on how to share books, recommendations are made on age appropriate books and a book is provided for the family to take home. The study will also evaluate the satisfaction of staff with the Read to Me! program in the emergency department and how this program impacts on the working environment.

The study is under the direction of Dr. Richard Goldbloom, at the IWK Health Centre.

Study Design

Approximately four hundred and fifty participants will be interviewed as part of the study. You will be in one of three groups. Surveys will be carried out with approximately 200 participants who do not take part in the Read to Me! program and approximately the same number who do. You will be asked to take part in the study on the day that you bring your child to the emergency department and also to participate in a follow up telephone interview at a predetermined time which will be approximately six to eight weeks after taking part in the Read to Me! program. Participants will be asked to complete the interview after they have been approached by a volunteer reader who invites their child to be read to.

The third group will consist of approximately 25 staff representing all positions in the emergency department. If you are in this group, you will be interviewed at the beginning of the Read to Me! program and at the end of the pilot project.

Taking part in this study will involve some of your time to answer survey questions. You will be asked to be interviewed about reading with children. If you are a parent/guardian you will be asked about reading patterns in your home while you are waiting with your child in the emergency department and then be asked to take part in a follow up interview six to eight weeks later.
If you are staff you will be asked your opinion on the Read to Me! program and how this program impacts on your working environment.

Potential Harms
There are no anticipated harms.

Potential Benefits
If you take part in the Read to Me! program you will have the opportunity to have volunteer readers read to your children, you will be provided modelling on reading aloud to children, information will be provided to you on how to share books, recommendations will be made on age appropriate books and a book will be provided for you to take home.

Alternatives to the Study
Not Applicable

Withdrawal from Participation
Participation in the study is entirely voluntary (your choice). You may decide not to enroll or you may withdraw from the study at any time. This will not affect your child's care by the doctor or your care at the IWK Health Centre in any way. If the study is changed in any way which could affect your decision to continue to participate, you will be told about the changes and you may be asked to sign a new informed consent.

Costs and Reimbursement
Participation in this study will not result in any expenses to you.

Confidentiality
Any information that is learned about you will be kept private. If the results of the study are published the publication will not contain any information which would identify you. Study records will be stored in a locked area and will be kept for five years after publication of study results.

Research Rights
Your signature on this form will show that you have understood to your satisfaction the information about the research study.

By signing this document you are not waiving any of your legal rights, nor are you releasing the investigator(s), institution(s) and/or sponsor(s) from their legal and professional responsibilities.

If you have any questions at any time during or after the study about these legal rights or about research in general and you would like an independent opinion, you may contact the Research Office of the IWK Health Centre at 470-8765, Monday to Friday between 9 am to 5 pm.

Following completion of the study, study results can be made available to you upon request. Please contact the researcher, Charlene Latimer MacDonnell, at 423-5234 if you wish to have a copy of the results.

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Study Title: The Impact of the Read to Me! Program in the Emergency Department of the IWK Health Centre on Family Literacy Practices

Participant ID:
Participant INITIALS:

Participant Consent
I have read or had read to me this information and consent form and have had the chance to ask questions which have been answered to my satisfaction before signing my name. I understand the nature of the study. I understand that I have the right to withdraw from the study at any time without affecting my care in any way. I have received a copy of the Information and Consent Form for future reference. I freely agree to participate in this research study.

Name of Participant: (Print)

Participant Signature:_____

Date: _____ Time: _____

STATEMENT BY PERSON PROVIDING INFORMATION ON STUDY
I have explained the nature and demands of the research study and judge that the participant named above understands the nature and demands of the study.

Name: (Print)

Signature: _____ Position: _____

Date: _____ Time:_____

STATEMENT BY PERSON OBTAINING CONSENT
I have explained the nature of the consent process to the participant and judge that they understand that participation is voluntary and that they may withdraw at any time from participating.

Name (Print)

Signature: _____ Position: _____

Date: _____ Time:_____

Other people present at time of signing:

Name (Print)

Signature: _____ Position: _____

Date: _____ Time:_____

Staff Information and Consent Form

Study Title: The Impact of the Read to Me! Program in the Emergency Department of the IWK Health Centre on Family Literacy Practices

Investigator: Charlene Latimer MacDonnell, Graduate Student (MA Thesis) Department of Child & Youth Study, Mount Saint Vincent University

Site Investigator: Dr Richard B. Goldbloom

Sponsor: Not Applicable

Introduction

You are being invited to take part in the research study named above. It is important that you understand the purpose of the study, how it may affect you, the risks and benefits of taking part and what you will be asked to do, before you decide if you want to take part. This information and consent form is to help you decide if it is in your best interest to take part in this study. You do not have to take part in this study. Taking part is entirely voluntary (your choice). If you have any questions that this form does not answer, the study Investigator will be happy to give you further information.

Purpose of the Study

The purpose of the study is to see if reading aloud to children, giving information to parents on reading to children and a book to the intervention group to take home influences reading patterns of families. More specifically, the study will determine if changes occur to reading patterns for families with children aged birth through six years who participate in a study where volunteer readers read to children, parents are shown how to read aloud to their children, information is provided to parents/guardians on how to share books, recommendations are made on age appropriate books and a book is provided for the intervention group family to take home. The study will also evaluate the satisfaction of staff with the Read to Me program in the emergency department and how this program impacts on the working environment.

The study is under the direction of Dr. Richard Goldbloom, at the IWK Health Centre.

Study Design

Approximately four hundred and fifty participants will be interviewed as part of the study. Surveys will be carried out with approximately 200 participants who do not take part in the Read to Me program and approximately the same number who do.

Approximately 25 staff representing all positions in the emergency department will be chosen randomly for an interview. If you are chosen, you will be interviewed at the beginning of the Read to Me! program and at the end of the pilot project.

Taking part in this study will involve some of your time to answer survey questions. You will be asked to be interviewed about your opinion of the Read to Me! program and how this program impacts on your working environment.

Potential Harms
There are no anticipated harms.

Potential Benefits
There is the potential for parents and children to be involved in activities which may make the wait to see a doctor appear shorter and result in fewer interruptions to staff with inquiries about how long the wait will be.

Alternatives to the Study
Not Applicable

Withdrawal from Participation
Participation in the study is entirely voluntary (your choice). You may decide not to enroll or you may withdraw from the study at any time. This will not affect your employment at the IWK Health Centre in any way. If the study is changed in any way which could affect your decision to continue to participate, you will be told about the changes and you may be asked to sign a new informed consent.

Costs and Reimbursement
Participation in this study will not result in any expenses to you.

Confidentiality
Any information that is learned about you will be kept private. If the results of the study are published the publication will not contain any information which would identify you. Study records will be stored in a locked area and will be kept for five years after publication of study results.

Research Rights
Your signature on this form will show that you have understood to your satisfaction the information about the research study.

By signing this document you are not waiving any of your legal rights, nor are you releasing the investigator(s), institution(s) and/or sponsor(s) from their legal and professional responsibilities.

If you have any questions at any time during or after the study about these legal rights or about research in general and you would like an independent opinion, you may contact the Research Office of the IWK Health Centre at 470-8765, Monday to Friday between 9 am to 5 pm.

Following completion of the study, study results can be made available to you upon request. Please contact the researcher, Charlene Latimer MacDonnell, at 423-5234 if you wish to have a copy of the results.

Contact Person
If you have any questions or concerns following your enrollment, you may call Charlene Latimer MacDonnell at 423-5234.

Study Title: The Impact of the Read to Me! Program in the Emergency Department of the IWK Health Centre on Family Literacy Practices

Participant ID:
Participant INITIALS:

Participant Consent
I have read or had read to me this information and consent form and have had the chance to ask questions which have been answered to my satisfaction before signing my name. I understand the nature of the study. I understand that I have the right to withdraw from the study at any time without affecting my care in any way. I have received a copy of the Information and Consent Form for future reference. I freely agree to participate in this research study.

Name of Participant:(Print)

Participant Signature:_____

Date:_____ Time:_____

STATEMENT BY PERSON PROVIDING INFORMATION ON STUDY
I have explained the nature and demands of the research study and judge that the participant named above understands the nature and demands of the study.

Name:(Print)

Signature: _____ Position:_____

Date: _____ Time:_____

STATEMENT BY PERSON OBTAINING CONSENT
I have explained the nature of the consent process to the participant and judge that they understand that participation is voluntary and that they may withdraw at any time from participating.

Name:(Print)

Signature: _____ Position:_____

Date: _____ Time:_____

Other people present at time of signing:

Name:(Print)

Signature: _____ Position:_____

Date: _____ Time:_____

Appendix B – Interview/Survey Forms

Survey 1: Interview/Survey- Parent/Guardian Control Group

Survey 2: Interview/Survey- Parent/Guardian Follow Up Control Group

Survey 3: Interview/Survey- Parent/Guardian Pre Read to Me Intervention Group

Survey 4: Interview/Survey- Parent/Guardian Post Read to Me Intervention Group

Survey 5: Interview/Survey- Initial Staff Read to Me Program

Survey 6: Interview/Survey- Staff Follow-up Read to Me Program

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SURVEY NUMBER:_____
DATE:_____
(MM/DD/YYYY)

IWK Health Centre

Read to Me!
Nova Scotia Family Literacy Program

SURVEY 1: INTERVIEW/SURVEY-PARENT/GUARDIAN CONTROL GROUP

1 IMPLEMENTATION
Parents who will not take part in the Read to Me! program are to be interviewed.

2 DURATION
Approximately 15 minutes.

3 DIRECTION TO INTERVIEWER
I would like to ask you some questions regarding parent-child activities and enter your confidential responses into a research project that I am working on. Is that OK?

4 RESPONDENT DETAILS
Child's First Name: _____
Parent's Name: _____
Telephone (work): _____
Telephone (home): _____

SURVEY QUESTIONS			DATA CODE
1 How old is your child who is being seen in the emergency department today? *[CHECK ONLY ONE THAT APPLIES, RECORD AGE IF STATED]*	☐	0-12 months	1
	☐	1-2 years	2
	☐	2-3 years	3
	☐	3-4 years	4
	☐	4-5 years	5
	☐	Older than 5 Years	6
	☐	Age (Specified)	7
	☐	_____	Text
2 What are the three favorite activities your child likes to do for enjoyment while indoors? *[USE PROMPTS, RECORD AS MANY OTHER ACTIVITIES AS STATED]*	☐	Playing Games	1
	☐	Watching TV/Videos	2
	☐	Reading or looking at books	3
	☐	Playing with toys	4
	☐	Other (Specify)	5
	☐	_____	Text
3 What indoor activity with your child do you enjoy most? *[CHECK ONLY ONE]*	☐	Playing Games	1
	☐	Watching TV/Videos	2
	☐	Reading or looking at books	3
	☐	Playing with toys	4
	☐	Other (Specify)	5
	☐	_____	Text
4 Does your child attend a licenced daycare or pre-school? *[CHECK ONLY ONE]*	☐	No	0
	☐	Yes	1
	☐	Don't know/Not Sure	2

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5a	What is the primary language spoken in your home? *[CHECK ONLY ONE]*	☐	English	1
		☐	French	2
		☐	Spanish	3
		☐	Arabic	4
		☐	Mi'Kmaq	5
		☐	Other (Specify)	6
		☐	_____	Text
5b	What other languages are spoken? *[CHECK ALL THAT APPLY, RECORD AS MANY OTHER LANGUAGES AS STATED]*	☐	English	1
		☐	French	2
		☐	Spanish	3
		☐	Arabic	4
		☐	Mi'Kmaq	5
		☐	No Other Language	6
		☐	Other (Specify)	7
		☐	_____	Text
6	What do you think is the most appropriate age for a child to be when you begin reading to the child? *[READ ALL CATEGORIES, SELECT ONLY ONE, RECORD ALL COMMENTS]*	☐	0-12 months	1
		☐	Older than 1 but less than 2 years	2
		☐	Older than 2 but less than 3 years	3
		☐	Older than 3 but less than 4 years	4
		☐	Older than 4 but less than 5 years	5
		☐	Pre Birth	6
		☐	Other (Specify)	7
		☐	_____	Text
7	Do you have your own library card? *[CHECK ONLY ONE]*	☐	No	0
		☐	Yes	1
		☐	Don't know/Not Sure	2
8	If yes, how often do you use the library? *[READ ALL CATEGORIES, SELECT ONLY ONE, RECORD ALL COMMENTS]*	☐	Almost Daily (2-3 times per week)	1
		☐	Weekly (Once per week)	2
		☐	Monthly (2-3 times per month)	3
		☐	Periodically (4-8 times per year)	4
		☐	Not Very Often (2-3 times per year)	5
		☐	Seldom or Rarely (Once per year)	6
		☐	Other (Specify)	7
		☐	_____	Text
9	Do you or someone else take your child to the library? *[READ ALL CATEGORIES, SELECT ONLY ONE, RECORD ALL COMMENTS]*	☐	No	0
		☐	Almost Daily (2-3 times per week)	1
		☐	Weekly (Once per week)	2
		☐	Monthly (2-3 times per month)	3
		☐	Periodically (4-8 times per year)	4
		☐	Not Very Often (2-3 times per year)	5
		☐	Seldom or Rarely (Once per year)	6
		☐	Other (Specify)	8
		☐	_____	Text

10	Do you or someone else read to your child? *[READ ALL CATEGORIES, SELECT ONLY ONE, RECORD ALL COMMENTS]*	☐	No	0
		☐	Almost Daily (2-3 times per week)	1
		☐	Weekly (Once per week)	2
		☐	Monthly (2-3 times per month)	3
		☐	Periodically (4-8 times per year)	4
		☐	Not Very Often (2-3 times per year)	5
		☐	Seldom or Rarely (Once per year)	6
		☐	Don't know/Not Sure	7
		☐	Other (Specify)	8
		☐	_____	Text
11	Have you observed your child looking at books on his or her own? *[CHECK ONLY ONE]*	☐	No	0
		☐	Almost Daily (2-3 times per week)	1
		☐	Weekly (Once per week)	2
		☐	Monthly (2-3 times per month)	3
		☐	Periodically (4-8 times per year)	4
		☐	Not Very Often (2-3 times per year)	5
		☐	Seldom or Rarely (Once per year)	6
		☐	Don't know/Not Sure	7
		☐	Other (Specify)	8
		☐	_____	Text
12	How often do you read for work or education? *[READ ALL CATEGORIES, SELECT ONLY ONE, RECORD ALL COMMENTS]*	☐	Daily	1
		☐	Several times per week	2
		☐	Once per week	3
		☐	Once per month	4
		☐	Seldom	5
		☐	Not Applicable	6
		☐	Never	7
13	How often do you read for fun or entertainment? *[READ ALL CATEGORIES, SELECT ONLY ONE, RECORD ALL COMMENTS]*	☐	Daily	1
		☐	Several times per week	2
		☐	Once per week	3
		☐	Once per month	4
		☐	Seldom	5
		☐	Not at all	6
14	What do you like to read? *[READ ALL CATEGORIES, CHECK AS MANY AS APPLY, RECORD ALL COMMENTS]*	☐	Novels/Biographies/History Books	1
		☐	Children's books	2
		☐	Magazines	3
		☐	Newspapers	4
		☐	Other (Specify)	5
		☐	_____	Text

15	What is the highest level of education that you have completed? *[READ ALL, CHECK ONLY THE HIGHEST LEVEL THAT APPLIES, RECORD ALL COMMENTS]*	☐	Did not complete elementary school	1
		☐	Elementary school	2
		☐	Middle school	3
		☐	Some high school	4
		☐	Received GED	5
		☐	High school graduate	6
		☐	At least one year of college or vocational training	7
		☐	4 year university degree	8
		☐	Postgraduate degree	9
		☐	Other (Specify)	10
		☐	_____	Text
16	What is your usual main occupation? *[CHECK ONLY ONE THAT APPLIES, RECORD ALL COMMENTS]*	☐	Homemaker	0
		☐	Service worker	1
		☐	Machine operator	2
		☐	Small business owner, craftsman	3
		☐	Clerical and sales worker	4
		☐	Technician	5
		☐	Manager	6
		☐	Professional	7
		☐	Other (Specify)	8
		☐	_____	Text
17	Did your child take part in the IWK newborn Read to Me! program? *[CHECK ONLY ONE THAT APPLIES, RECORD ALL COMMENTS]*	☐	No	0
		☐	Yes	1
		☐	Don't know/Not Sure	2

Thank you for taking the time to share this information with us.

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SURVEY NUMBER:_____
DATE:_____
(MM/DD/YYYY)

IWK Health Centre

Read to Me!
Nova Scotia Family Literacy Program

SURVEY 2: INTERVIEW/SURVEY-PARENT/GUARDIAN FOLLOW UP CONTROL GROUP

1 IMPLEMENTATION
Parents who did not take part in the Read to Me! program but were interviewed as part of the control group.

2 DURATION
Approximately 10 minutes.

3 DIRECTION TO INTERVIEWER
I would like to ask you some questions regarding parent-child activities and enter your confidential responses into a research project that I am working on. Is that OK?

4 RESPONDENT DETAILS
Child's First Name: _____
Parent's Name: _____
Telephone (work): _____
Telephone (home): _____

SURVEY QUESTIONS			DATA CODE
1 What are the three favorite activities your child likes to do for enjoyment while indoors? *[USE PROMPTS, RECORD AS MANY OTHER ACTIVITIES AS STATED]*	1.	Playing Games	1
	2.	Watching TV/Videos	2
	3.	Reading or looking at books	3
	4.	Playing with toys	4
	5.	Other (Specify)	5
	6.	_____	Text
2 What indoor activity with your child do you enjoy most? *[CHECK ONLY ONE]*	7.	Playing Games	1
	8.	Watching TV/Videos	2
	9.	Reading or looking at books	3
	10.	Playing with toys	4
	11.	Other (Specify)	5
	12.	_____	Text
3 Does your child attend a licenced daycare or pre-school? *[CHECK ONLY ONE]*	☐	No	0
	☐	Yes	1
	☐	Don't know/Not Sure	2
4 What do you think is the most appropriate age for a child to be when you begin reading to the child? *[READ ALL CATEGORIES, SELECT ONLY ONE, RECORD ALL COMMENTS]*	☐	0-12 months	1
	☐	Older than 1 but less than 2 years	2
	☐	Older than 2 but less than 3 years	3
	☐	Older than 3 but less than 4 years	4
	☐	Older than 4 but less than 5 years	5
	☐	Other (Specify)	6
	☐	_____	7

5	Do you have your own library card? *[CHECK ONLY ONE]*	☐	No	0
		☐	Yes	1
		☐	Don't know/Not Sure	2
6	If yes, how often do you use the library? *[READ ALL CATEGORIES, SELECT ONLY ONE, RECORD ALL COMMENTS]*	☐	Almost Daily (2-3 times per week)	1
		☐	Weekly (Once per week)	2
		☐	Monthly (2-3 times per month)	3
		☐	Periodically (4-8 times per year)	4
		☐	Not Very Often (2-3 times per year)	5
		☐	Seldom or Rarely (Once per year)	6
		☐	Other (Specify)	7
		☐	_____	Text
7	Do you or someone else take your child to the library? *[READ ALL CATEGORIES, SELECT ONLY ONE, RECORD ALL COMMENTS]*	☐	Almost Daily (2-3 times per week)	1
		☐	Weekly (Once per week)	2
		☐	Monthly (2-3 times per month)	3
		☐	Periodically (4-8 times per year)	4
		☐	Not Very Often (2-3 times per year)	5
		☐	Seldom or Rarely (Once per year)	6
		☐	Other (Specify)	7
		☐	_____	Text
8	Do you or someone else read to your child? *[READ ALL CATEGORIES, SELECT ONLY ONE, RECORD ALL COMMENTS]*	☐	No	0
		☐	Almost Daily (2-3 times per week)	1
		☐	Weekly (Once per week)	2
		☐	Monthly (2-3 times per month)	3
		☐	Periodically (4-8 times per year)	4
		☐	Not Very Often (2-3 times per year)	5
		☐	Seldom or Rarely (Once per year)	6
		☐	Don't know/Not Sure	7
		☐	Other (Specify)	8
		☐	_____	Text
9	Have you observed your child looking at books on his or her own? *[CHECK ONLY ONE]*	☐	No	0
		☐	Almost Daily (2-3 times per week)	1
		☐	Weekly (Once per week)	2
		☐	Monthly (2-3 times per month)	3
		☐	Periodically (4-8 times per year)	4
		☐	Not Very Often (2-3 times per year)	5
		☐	Seldom or Rarely (Once per year)	6
		☐	Don't know/Not Sure	7
		☐	Other (Specify)	8
		☐	_____	Text
10	How often do you read for work or education? *[READ ALL CATEGORIES, SELECT ONLY ONE, RECORD ALL COMMENTS]*	☐	Daily	1
		☐	Several times per week	2
		☐	Once per week	3
		☐	Once per month	4
		☐	Seldom	5
11	How often do you read for fun or entertainment? *[READ ALL CATEGORIES, SELECT ONLY ONE, RECORD ALL COMMENTS]*	☐	Daily	1
		☐	Several times per week	2
		☐	Once per week	3
		☐	Once per month	4
		☐	Seldom	5

Survey # 2

12	How many adults live in your home? *[CHECK ONLY ONE THAT APPLIES, RECORD ALL COMMENTS]*	☐	One Adult	1
		☐	Two adults	2
		☐	Three adults	3
		☐	Four adults	4
		☐	Other (Specify)	5
		☐	_____	Text
13	How many children in your family? Please give their ages. *[CHECK ONLY ONE THAT APPLIES, RECORD ALL COMMENTS]*	☐	1-Age_____	0
		☐	2-Age_____	1
		☐	3-Age_____	2
		☐	4-Age_____	3
		☐	5-Age_____	4
		☐	6-Age_____	5
		☐	7-Age_____	6
		☐	8-Age_____	7
		☐	Other (Specify)	8
		☐	_____	Text
14	Please rate your satisfaction with the care that your child received in the Emergency Department at the IWK Health Centre. *[CHECK ONLY ONE THAT APPLIES, RECORD ALL COMMENTS]*	☐	Excellent	1
		☐	Very Good	2
		☐	Good	3
		☐	Not Very Good	4
		☐	Poor	5
		☐	Don't know/Not Sure	6
		☐	Other (Specify)	7
		☐	_____	Text
15	Would you agree that your visit to the IWK Health Centre Emergency Department was satisfactory overall. *[CHECK ONLY ONE THAT APPLIES, RECORD ALL COMMENTS]*	☐	Strongly disagree	0
		☐	Disagree	1
		☐	Not sure	2
		☐	Agree	3
		☐	Strongly agree	4

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SURVEY NUMBER:_____

DATE:_____
(MM/DD/YYYY)

IWK Health Centre

Read to Me!
Nova Scotia Family Literacy Program

SURVEY 3: INTERVIEW/SURVEY- PARENT/GUARDIAN PRE READ TO ME! INTERVENTION GROUP

1 IMPLEMENTATION
To be carried out with parents/guardians of children who participate in the emergency department Read to Me! program. To be completed on the day that the child takes part in the program.

2 DURATION
Approximately 15 minutes.

3 DIRECTION TO INTERVIEWER
I would like to ask you some questions regarding parent-child activities and enter your confidential responses into a research project that I am working on. Is that OK?

4 RESPONDENT DETAILS
Child's First Name: _____
Parent's Name: _____
Telephone (work): _____
Telephone (home): _____

SURVEY QUESTIONS			DATA CODE
1 How old is your child who is being seen in the emergency department today? *[CHECK ONLY ONE THAT APPLIES, RECORD AGE IF STATED]*	☐	0-12 months	1
	☐	1-2 years	2
	☐	2-3 years	3
	☐	3-4 years	4
	☐	4-5 years	5
	☐	Older than 5 Years	6
	☐	Age (Specify)	7
	☐	_____	Text
2 What are the three favorite activities your child likes to do for enjoyment while indoors? *[USE PROMPTS, RECORD AS MANY OTHER ACTIVITIES AS STATED]*	☐	Playing Games	1
	☐	Watching TV/Videos	2
	☐	Reading or looking at books	3
	☐	Playing with toys	4
	☐	Other (Specify)	5
	☐	_____	Text
3 What indoor activity with your child do you enjoy most? *[CHECK ONLY ONE]*	☐	Playing Games	1
	☐	Watching TV/Videos	2
	☐	Reading or looking at books	3
	☐	Playing with toys	4
	☐	Other (Specify)	5
	☐	_____	Text
4 Does your child attend a licenced daycare or pre-school? *[CHECK ONLY ONE]*	☐	No	0
	☐	Yes	1
	☐	Don't know/Not Sure	2

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5a	What is the primary language spoken in your home? *[CHECK ONLY ONE]*	☐	English	1
		☐	French	2
		☐	Spanish	3
		☐	Arabic	4
		☐	Mi'Kmaq	5
		☐	Other(Specify)	6
		☐	_____	Text
5b	What other languages are spoken? *[CHECK ALL THAT APPLY, RECORD AS MANY OTHER LANGUAGES AS STATED]*	☐	English	1
		☐	French	2
		☐	Spanish	3
		☐	Arabic	4
		☐	Mi'Kmaq	5
		☐	No other language	6
		☐	Other (Specify)	7
		☐	_____	Text
6	What do you think is the most appropriate age for a child to be when you begin reading to the child? *[READ ALL CATEGORIES, SELECT ONLY ONE, RECORD ALL COMMENTS]*	☐	0-12 months	1
		☐	Older than 1 but less than 2 years	2
		☐	Older than 2 but less than 3 years	3
		☐	Older than 3 but less than 4 years	4
		☐	Older than 4 but less than 5 years	5
		☐	Pre Birth	6
		☐	Other (Specify)	7
		☐	_____	
7	Do you have your own library card? *[CHECK ONLY ONE]*	☐	No	0
		☐	Yes	1
		☐	Don't know/Not Sure	2
8	If yes, how often do you use the library? *[READ ALL CATEGORIES, SELECT ONLY ONE, RECORD ALL COMMENTS]*	☐	Almost Daily (2-3 times per week)	1
		☐	Weekly (Once per week)	2
		☐	Monthly (2-3 times per month)	3
		☐	Periodically (4-8 times per year)	4
		☐	Not Very Often (2-3 times per year)	5
		☐	Seldom or Rarely (Once per year)	6
		☐	Never	7
		☐	Other (Specify)	8
		☐	_____	Text
9	Do you or someone else take your child to the library? *[CHECK ONLY ONE]*	☐	No	0
		☐	Almost Daily (2-3 times per week)	1
		☐	Weekly (Once per week)	2
		☐	Monthly (2-3 times per month)	3
		☐	Periodically (4-8 times per year)	4
		☐	Not Very Often (2-3 times per year)	5
		☐	Seldom or Rarely (Once per year)	6
		☐	Other (Specify)	8
		☐	_____	Text

10	Do you or someone else read to your child? *[READ ALL CATEGORIES, CHECK ONLY ONE, RECORD ALL COMMENTS]*	☐	No	0
		☐	Almost Daily (2-3 times per week)	1
		☐	Weekly (Once per week)	2
		☐	Monthly (2-3 times per month)	3
		☐	Periodically (4-8 times per year)	4
		☐	Not Very Often (2-3 times per year)	5
		☐	Seldom or Rarely (Once per year)	6
		☐	Other (Specify)	8
		☐	_____	Text
11	Have you observed your child looking at books on his or her own? *[CHECK ONLY ONE]*	☐	No	0
		☐	Almost Daily (2-3 times per week)	1
		☐	Weekly (Once per week)	2
		☐	Monthly (2-3 times per month)	3
		☐	Periodically (4-8 times per year)	4
		☐	Not Very Often (2-3 times per year)	5
		☐	Seldom or Rarely (Once per year)	6
		☐	Other (Specify)	7
		☐	_____	Text
12	How often do you read for work or education? *[READ ALL CATEGORIES, SELECT ONLY ONE, RECORD ALL COMMENTS]*	☐	Daily	1
		☐	Several times per week	2
		☐	Once per week	3
		☐	Once per month	4
		☐	Seldom	5
		☐	Not applicable	6
		☐	Never	7
13	How often do you read for fun or entertainment? *[READ ALL CATEGORIES, SELECT ONLY ONE, RECORD ALL COMMENTS]*	☐	Daily	1
		☐	Several times per week	2
		☐	Once per week	3
		☐	Once per month	4
		☐	Seldom	5
		☐	Not at all	6
14	What do you like to read? *[READ ALL CATEGORIES, CHECK AS MANY AS APPLY, RECORD ALL COMMENTS]*	☐	Novels/Biographies/History Books	1
		☐	Children's books	2
		☐	Magazines	3
		☐	Newspapers	4
		☐	Other (Specify)	5
		☐	_____	Text
15	What is the highest level of education that you have completed? *[CHECK ONLY ONE THAT APPLIES, RECORD ALL COMMENTS]*	☐	Did not complete elementary school	1
		☐	Elementary school	2
		☐	Middle school	3
		☐	Some high school	4
		☐	Received GED	5
		☐	High school graduate	6
		☐	At least one year of college or vocational training	7
		☐	4 year university degree	8
		☐	Postgraduate degree	9
		☐	Other (Specify)	10
		☐	_____	Text

16	What is your usual main occupation? *[CHECK ONLY ONE THAT APPLIES, RECORD ALL COMMENTS]*	☐	Homemaker	0
		☐	Service worker	1
		☐	Machine operator	2
		☐	Small business owner, craftsman	3
		☐	Clerical and sales worker	4
		☐	Technician	5
		☐	Manager	6
		☐	Professional	7
		☐	Other (Specify)	8
		☐	_____	Text
17	Did your child take part in the IWK newborn Read to Me! program? *[CHECK ONLY ONE THAT APPLIES, RECORD ALL COMMENTS]*	☐	No	0
		☐	Yes	1
		☐	Don't know/Not Sure	2

Thank you for taking the time to share this information with us.

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SURVEY NUMBER:_____
DATE:_____
(MM/DD/YYYY)

IWK Health Centre

Read to Me!
Nova Scotia Family Literacy Program

SURVEY 4: INTERVIEW/SURVEY- PARENT/GUARDIAN POST READ TO ME! INTERVENTION GROUP

1 IMPLEMENTATION
To be carried out 6 to 8 weeks after the intervention with all parents/guardians of children who participated in the emergency department Read to Me! program.

2 DURATION
Approximately 20 minutes.

3 DIRECTION TO INTERVIEWER
I would like to ask you some questions regarding parent-child activities to see if these have changed since taking part in the Read to Me! program. Your confidential responses will be entered into a research project that I am working on. Is that OK?

4 RESPONDENT DETAILS
Completed based on Survey 3 response (linked based on Survey 3 ID number):
[SURVEY ID NUMBER FROM COMPLETED SURVEY 3] _____
Child's First Name: _____
Parent's Name: _____
Telephone (work): _____
Telephone (home): _____

SURVEY QUESTIONS			DATA CODE
1 Do you recall having a volunteer reader read to your child when you visited the IWK Emergency Department? *[CHECK ONLY ONE THAT APPLIES]*	☐ ☐ ☐	No Yes Don't know/Not Sure	0 1 2
2 Did you observe the reader reading to your child? *[CHECK ONLY ONE THAT APPLIES]*	☐ ☐ ☐	No Yes Don't know/Not Sure	0 1 2
3 Did you learn new techniques for reading with your child? *[CHECK ONLY ONE THAT APPLIES]*	☐ ☐ ☐	No Yes Don't know/Not Sure	0 1 2
4 Did your child enjoy having someone read to him/her while waiting to see a doctor? *[CHECK ONLY ONE THAT APPLIES]*	☐ ☐ ☐	No Yes Don't know/Not Sure	0 1 2

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5	How often do you or someone else read to your child? *[READ ALL CATEGORIES, SELECT ONLY ONE, RECORD ALL COMMENTS]*	☐	Almost Daily (2-3 times per week)	1
		☐	Weekly (Once per week)	2
		☐	Monthly (2-3 times per month)	3
		☐	Periodically (4-8 times per year)	4
		☐	Not Very Often (2-3 times per year)	5
		☐	Seldom or Rarely (Once per year)	6
		☐	Other (Specify)	7
		☐	_____	Text
6	What do you think is the most appropriate age for a child to be when you begin reading to the child? *[READ ALL CATEGORIES, SELECT ONLY ONE, RECORD ALL COMMENTS]*	☐	0-12 months	1
		☐	Older than 1 but less than 2 years	2
		☐	Older than 2 but less than 3 years	3
		☐	Older than 3 but less than 4 years	4
		☐	Older than 4 but less than 5 years	5
		☐	Other (Specify)	6
		☐	_____	Text
7	What are the three favorite activities your child likes to do for enjoyment while indoors? *[CHECK ONLY ONE]*	☐	Playing Games	1
		☐	Watching TV/Videos	2
		☐	Reading or looking at books	3
		☐	Playing with toys	4
		☐	Other (Specify)	5
		☐	_____	Text
8	What indoor activity with your child do you enjoy most? *[CHECK ONLY ONE]*	☐	Playing Games	1
		☐	Watching TV/Videos	2
		☐	Reading or looking at books	3
		☐	Playing with toys	4
		☐	Other (Specify)	5
		☐	_____	Text
9	Do you have your own library card? *[CHECK ONLY ONE]*	☐	No	0
		☐	Yes	1
		☐	Don't know/Not Sure	2
10	If yes, how often do you use the library? *[RECORD NUMBER OF TIMES PER SELECTED CATEGORY, RECORD ALL COMMENTS]*	☐	Almost Daily (2-3 times per week)	0
		☐	Weekly (Once per week)	1
		☐	Monthly (2-3 times per month)	2
		☐	Periodically (4-8 times per year)	3
		☐	Not Very Often (2-3 times per year)	4
		☐	Seldom or Rarely (Once per year)	5
		☐	Never	7
		☐	Other (Specify)	8
		☐	_____	Text
11	Do you or someone else take your child to the library? *[CHECK ONLY ONE]*	☐	No	0
		☐	Almost Daily (2-3 times per week)	1
		☐	Weekly (Once per week)	2
		☐	Monthly (2-3 times per month)	3
		☐	Periodically (4-8 times per year)	4
		☐	Not Very Often (2-3 times per year)	5
		☐	Seldom or Rarely (Once per year)	6
		☐	Other (Specify)	8
		☐	_____	Text

12	Have you observed your child looking at books on his or her own? *[CHECK ONLY ONE]*	☐	No	0
		☐	Almost Daily (2-3 times per week)	1
		☐	Weekly (Once per week)	2
		☐	Monthly (2-3 times per month)	3
		☐	Periodically (4-8 times per year)	4
		☐	Not Very Often (2-3 times per year)	5
		☐	Seldom or Rarely (Once per year)	6
		☐	Don't know/Not Sure	7
		☐	Other (Specify)	8
		☐	_____	Text
13	Has your child received any books since taking part in the Read to Me! program in the Emergency Department of the IWK? *[CHECK ONLY ONE]*	☐	No	0
		☐	Yes	1
		☐	Don't know/Not Sure	2
14	How often do you read for work or education? *[READ ALL CATEGORIES, SELECT ONLY ONE, RECORD ALL COMMENTS]*	☐	Daily	1
		☐	Once per week	2
		☐	Several times per week	3
		☐	Once per month	4
		☐	Seldom	5
		☐	Not applicable	6
		☐	Never	7
15	How often do you read for fun or entertainment? *[READ ALL CATEGORIES, SELECT ONLY ONE, RECORD ALL COMMENTS]*	☐	Daily	1
		☐	Once per week	2
		☐	Several times per week	3
		☐	Once per month	4
		☐	Seldom	5
		☐	Not at all	6
16	How many adults live in your home? *[CHECK ONLY ONE THAT APPLIES, RECORD ALL COMMENTS]*	☐	One Adult	1
		☐	Two adults	2
		☐	Three adults	3
		☐	Four adults	4
		☐	Other (Specify)	5
		☐	_____	Text
17	How many children in your family? Please give their ages. *[CHECK ONLY ONE THAT APPLIES, RECORD ALL COMMENTS]*	☐	1-Age_____	0
		☐	2-Age_____	1
		☐	3-Age_____	2
		☐	4-Age_____	3
		☐	5-Age_____	4
		☐	6-Age_____	5
		☐	7-Age_____	6
		☐	8-Age_____	7
		☐	Other (Specify)	8
		☐	_____	Text

18	Please rate your satisfaction with the care your child received in the Emergency Department at the IWK Health Centre. *[CHECK ONLY ONE THAT APPLIES, RECORD ALL COMMENTS]*	☐	Excellent	1
		☐	Very Good	2
		☐	Good	3
		☐	Not Very Good	4
		☐	Poor	5
		☐	Don't know/Not Sure	6
		☐	Other (Specify)	7
		☐	_____	Text
19	How would you rate the Read To Me! program? *[CHECK ONLY ONE THAT APPLIES, RECORD ALL COMMENTS]*	☐	Excellent	1
		☐	Very Good	2
		☐	Good	3
		☐	Not Very Good	4
		☐	Poor	5
		☐	Don't know/Not Sure	6
		☐	Other (Specify)	7
		☐	_____	Text
20	Would you agree that your visit to the IWK Health Centre Emergency Department was satisfactory overall? *[CHECK ONLY ONE THAT APPLIES, RECORD ALL COMMENTS]*	☐	Strongly disagree	0
		☐	Disagree	1
		☐	Not sure	2
		☐	Agree	3
		☐	Strongly agree	4
		☐	_____	Text

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Read to Me!
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SURVEY 5: INTERVIEW/SURVEY- INITIAL STAFF READ TO ME! PROGRAM

1 IMPLEMENTATION
To be carried out with staff who work in the emergency department of the IWK Health Centre.

2 DURATION
Approximately 5 minutes.

3 DIRECTION TO INTERVIEWER
I would like to ask you some questions regarding the emergency department waiting area and enter your confidential responses into a research project that I am working on. Is that OK?

4 RESPONDENT DETAILS
Name: _____
Telephone (work): _____
Telephone (home): _____

SURVEY QUESTIONS			DATA CODE
1 How long have you worked in the emergency department at the IWK Health Centre? *[CHECK ONLY ONE THAT APPLIES]*	☐	Less than one year	1
	☐	1-5 years	2
	☐	5-10 years	3
	☐	10 years or more	4
2 Do you think young (Birth to Age 6) patients currently have enough to keep them (and their parents) occupied while waiting to see a doctor? *[CHECK ONLY ONE THAT APPLIES]*	☐	No	0
	☐	Yes	1
	☐	Don't know/Not Sure	2
3a Do parents frequently ask how long it will be before their child will be seen by a doctor? *[CHECK ONLY ONE THAT APPLIES]*	☐	All the time (80 to 100 per cent ask)	1
	☐	Very frequently (60 to 80 per cent ask)	2
	☐	Frequently (40 to 60 per cent ask)	3
	☐	Infrequently (20 to 40 per cent of the time)	4
	☐	Very Infrequently (0 to 20 per cent of the time)	5
	☐	Don't know/Not Sure	6
3b If yes, is this disruptive to your routine? *[CHECK ONLY ONE THAT APPLIES]*	☐	No	0
	☐	Yes	1
	☐	Don't know/Not Sure	2
4 When you observe/notice children in the waiting area of the emergency department, do you see them reading or looking at books? *[CHECK ONLY ONE THAT APPLIES]*	☐	All the time (80 to 100 per cent ask)	1
	☐	Very frequently (60 to 80 per cent ask)	2
	☐	Frequently (40 to 60 per cent ask)	3
	☐	Infrequently (20 to 40 per cent of the time)	4
	☐	Very Infrequently (0 to 20 per cent of the time)	5
	☐	Don't know/Not Sure	6

Thank you for taking the time to share this information with us.

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SURVEY 6: INTERVIEW/SURVEY- STAFF FOLLOW-UP READ TO ME! PROGRAM

1 IMPLEMENTATION
To be carried out with staff of the emergency department of the IWK Health Centre after implementation of the Read to Me! program.

2 DURATION
Approximately 10 minutes.

3 DIRECTION TO INTERVIEWER
I would like to ask you some questions regarding the emergency department waiting area and enter your confidential responses into a research project that I am working on. Is that OK?

4 RESPONDENT DETAILS
Completed based on Survey 4 responses (linked based on Survey 4 ID number):
[SURVEY ID NUMBER FROM COMPLETED SURVEY #4] _____
Name: _____
Telephone (work): _____
Telephone(home): _____

SURVEY QUESTIONS			DATA CODE
1 Was the Read to Me! program in the emergency department disruptive to your normal routine? *[CHECK ONLY ONE THAT APPLIES]*	1. 2. 3.	No Yes Don't know/Not Sure	0 1 2
2 Would you recommend continuation of the Read to Me! program in the emergency department? *[CHECK ONLY ONE THAT APPLIES]*	4. 5. 6.	No Yes Don't know/Not Sure	0 1 2
3 Comparing participants (parents and children) who took part in the Read Me! program to those who did not, were participants of the program more content? *[CHECK ONLY ONE THAT APPLIES]*	7. 8. 9.	No Yes Don't know/Not Sure	0 1 2
3b Comparing participants (parents and children) who took part in the Read Me! program to those who did not, were participants of the program less stressed? *[CHECK ONLY ONE THAT APPLIES]*	10. 11. 12.	No Yes Don't know/Not Sure	0 1 2

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3c	Comparing participants (parents and children) who took part in the Read Me! program to those who did not, were participants of the program more patient? *[CHECK ONLY ONE THAT APPLIES]*	13. 14. 15.	No Yes Don't know/Not Sure	0 1 2
4	Were there less interruptions by parents/guardians inquiring about when their child would be seen by a doctor while the Read to Me! volunteer was present? *[CHECK ONLY ONE THAT APPLIES]*	☐ ☐ ☐	No Yes Don't know/Not Sure	0 1 2
5	Would you recommend that a Read to Me! program be instituted in other pediatric emergency rooms across Canada? *[CHECK ONLY ONE THAT APPLIES]*	☐ ☐ ☐	No Yes Don't know/Not Sure	0 1 2
6	Please list any practical suggestions you have for how the Read to Me! program in the emergency department could be improved.			Text