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Department of Centre for the Study of Curriculum and
The University of British Columbia
Vancouver, Canada

Date Oct. 12, 2021

DE-6 (2/88)
Abstract

This exploratory study focused on identifying the structural indicators of high quality childcare that are associated with high levels of caregiver sensitivity. The participants in the study were 318 caregivers employed in 234 Canadian childcare centres. Caregivers were observed in their centres and their sensitivity was rated using the Caregiver Interaction Scale (Arnett, 1989). Structural indicators of quality were identified through a Centre Questionnaire and a Staff Questionnaire developed for the You Bet I Care! study (Goelman et al. 2000) sent to centres prior to the observations. Using a median split, the caregivers' scores were divided into high and low scores and the structural indicators of the two groups were compared. The results were analysed first considering the scores of all observed caregivers together and then as two separate groups: caregivers of infants and toddlers and caregivers of children aged 3 to 6 years. The analysis revealed that certain features of the centre and characteristics of the caregiver were associated with higher levels of caregiver sensitivity. The features of the centre that were associated with caregiver sensitivity included financial issues (e.g. wages), staff development, centre administration, and characteristics of the children in the centre. Characteristics of the caregivers that were associated with sensitivity were caregiver attitudes and beliefs, caregiver feelings about their work, and level of education. The results of this study suggest that caregiver sensitivity which is related to positive developmental outcomes for children may be enhanced through the active support of the larger community.
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Acknowledgements

I would like to thank Hillel Goelman for his continued support, encouragement and patience through a very long process. Thanks also to Kim Schonert-Reichl and Carl Leggo, the other members of my thesis committee, for the suggestions and feedback they gave me. Thanks to Barry Foyer for extensive support analyzing the data.

I would also like to thank Leigh Dawson and Maia Bessemer for helping me navigate my computer and Maggie Dawson and Jan Blades for their strong encouragement to finish. And thank you to Bruce for everything.
Factors Associated with Sensitive Caregivers in Canadian Childcare Centres

Chapter 1

In 1989, the United Nations made a formal declaration entitled the Convention on the Rights of the Child. This convention implies that all children have the right to a childhood in which their basic needs are met and their continuing development is supported. Rights exist within the context of responsibilities. In the case of children, the responsibilities belong to adults, including those in a child’s family and those in the larger community. Ensuring that children who attend childcare centres experience an environment which meets their basic needs and facilitates their optimum development concerns all who are responsible for childcare, including parents, caregivers, communities and governments. Identifying which factors predict such environments continues to be a focus of childcare researchers.

Uri Bronfenbrenner (1979) described a systemic ecological theory of child development, in which the environment plays a key role in a child’s development. Ecological systems theory refers to four linked systems: the microsystem, the mesosystem, the exosystem and the macrosystem in which each child lives. There can be one or more microsystems in children’s lives including their home life and their life in a childcare centre. The mesosystem refers to the links between microsystems, such as the interactions and exchanges between child caregivers and parents. The exosystem refers to the larger community in which a child lives, such as the neighbourhood, and could include, for example, a parent’s worksite that provides childcare. Finally, the macrosystem is the broader environment in which the other three systems are embedded and which includes governments. Governments can thus impact upon children’s
development through regulations, laws and policies that either direct support to programs that support children or do not support such programs. In either case, in this theoretical framework, the chosen policies and laws impact children's development. Through examination of these systems, ecological theory provides researchers with a framework to consider the factors that impact children's development.

Researchers describe childcare environments in terms of the quality of care provided. Quality of care in centres varies and high quality care has been demonstrated to be associated with better developmental outcomes for children (e.g. Hagekull & Bohlin, 1995; Hedin, Ekholm, & Andersson, 1997; Peisner-Feinberg & Burchinal, 1997). Quality of care includes structural and process features of quality. Structural features of quality involve measurable items such as group size, caregiver-child ratio, and caregiver education and beliefs. These features provide indicators of quality. Some indicators of quality can be legislated and monitored. Others, such as caregiver beliefs, can be influenced through education, experience and professional development. Process features of quality are the actual experiences of children in childcare centres, including the activities and the materials that are provided as well as caregiver behaviours and the emotional tone of the centre. In a childcare centre the process features indicate the ways in which the adults, responsible for the environment, attempt to meet the goal of facilitating positive developmental outcomes for children in their care. Process features of quality are difficult to legislate and monitor and must be developed and supported by the providers of specific childcare programs.

McCartney et al. (1997) state that caregiver warmth, sensitivity and responsiveness to the individual needs of a child are at the heart of every definition of quality care. Leavitt (1995)
suggests that, to be emotionally responsive, caregivers must pay attention to feelings, involvement, connections, compassion, respect, comfort and nurturance. Goldstein (1998) defines caring as thoughtful actions by the carer for the cared-for that are based on empathetic engrossed encounters. Fuller (1992) describes a view of ethics called an ethics of appreciation that roots caring action in the caregiver's ability to perceive and respond to needs and interests arising in his or her environment. Each of these ideas describes caring as the caregiver responding in a way that is meaningful to the one cared-for. Hoffman (2000) defines empathy as an affective response more appropriate to another's situation than one's own. Emotionally responsive caregivers respond to the needs of children in an empathetic way. Uncovering the structural features of quality, which are related to sensitive and responsive caring, supports adults in their attempts to meet their responsibilities to children.

1.1) Literature Review

Several research projects have considered the quality of childcare children actually experience and what factors are associated with those experiences (de Kruf, McWilliam, Ridley & Wakely, 2000; Hagekull & Bohlin, 1995; Hedin, Ekholm, & Andersson, 1997; McCartney et al., 1997; NICHD Early Childcare Research Network, 1996; Phillipsen, Burchinal, Howes, & Cryer, 1997). These large studies point to some indicators of quality such as child/caregiver ratio, group size, and caregiver characteristics. Caregiver characteristics include education, experience, attitudes, sensitivity, responsiveness and interaction behaviours with children as well as working conditions. Some studies seem to indicate that many children in childcare centres receive only minimally acceptable levels of care (NICHD Early Childcare
In a qualitative study, Leavitt (1995) described the emotional culture of several infant-toddler centres and found that many of the children she observed experienced a negative emotional tone while in the centres. In another qualitative study, Goldstein (1998) describes how one early childhood teacher's commitment to caring affects her teaching practices.

Hagekull and Bohlin (1995), in a longitudinal study, investigated the relationship between the quality of infant-toddler care, child and family characteristics and the socioemotional development of the children. They rated, either through observation or interview, four components of quality in several Swedish day care centres. These components included structural aspects of the centres, stimulation provided by the environment, the emotional tone in the centre, and caregiver success in fulfilling set goals for a particular focal child. The researchers found that high quality child care was related to children's expressions of positive emotions and in addition seemed to provide some compensatory effects for children from less advantaged homes. They also found that boys seem to benefit from high quality care experiences more than girls.

In a large study conducted by the NICHD Early Childcare Research Network (1996) the researchers observed non-maternal caregiver interactions with infants who were under one year of age. The non-maternal caregivers included fathers, relatives, and in-home caregivers, as well as caregivers in family day homes and childcare centres. The researchers assessed the structural characteristics of the settings, as well as caregiver characteristics and beliefs about child rearing. Structural characteristics assessed were group size, ratio, and the physical environment. Caregiver characteristics included formal education, specialized child care training and child care experience. Beliefs about child rearing were evaluated on a dimension
of nonauthoritarian child rearing beliefs. Caregiver behaviours with specific infants were assessed with an observation instrument developed for the study. This study found positive caregiving to be associated with small groups, low child-adult ratio, safe stimulating physical environments, more formal education of caregivers and with caregivers who held more nonauthoritarian child rearing beliefs. However, a small negative correlation was found between observed caregiving and the caregiver’s child care experience and no relation was found between observed caregiving and specialized child care training. In addition, for infants in child care centres, only the variables of smaller group sizes and caregivers’ higher levels of formal education were positively associated with frequent positive caregiving behaviours. These authors concluded that most of the infants in this study were receiving moderately high quality care. However, they pointed out that the measure they used rated the care as moderate to high quality while the same caregiving would receive a mediocre rating on the Harms/Clifford Infant Toddler Environment Rating Scale.

Hedin, Ekholm, and Andersson (1997) investigated whether various centre climates were related to children’s behaviour in centres serving children from ages 1 to 10 years of age. They described climates as “rearing” climates and “work” climates. The rearing climates were made up of patterns of adult behaviours toward children. The work climates were adult intentions, attitudes and norms regarding work and interpersonal relations with other adults. The researchers identified three types of rearing climates: future focused, present focused and combined. A future focused climate was characterized by adults preparing children for the future by being active with them as well as sharing influence over every day life in the centre with them. In present focused climates adults focused on the present by organizing activities to run as smoothly as possible for themselves, while during free play they were passive with children and talked
to other adults frequently. Combined climates included some behaviours from each of the other categories. Work climates were identified as relaxed, strained and mixed based on the amount of tension in the environment and on the adult’s views of their work situations. They found that both types of climates seemed to influence prosocial and collaborative behaviour with the rearing environment having the largest effect. In future focused and combined rearing climates and in relaxed work climates, children engaged in more prosocial and collaborative behaviour than in present focused rearing climates or strained work climates.

McCartney et al. (1997) theorized that teacher-child interaction would be related to good outcomes for children. They used the relevant items on the Harms/Clifford Infant Toddler Environment Rating Scale and Early Childhood Environment Rating Scale as well as the Assessment Profile for Early Childhood Programs (McCartney et al.) to assess teacher-child interaction in centres which provided care for infants, toddlers or preschoolers. They found associations between teacher-child interactions and social bids by toddlers and preschoolers but no associations between teacher-child interactions and other measured social outcomes, including social play, separation and reunion behaviour, behaviour problems and perceived competence and social acceptance. In addition, they found that over time child care history became important where the number of changes in childcare were associated with dependency and behaviour problems for preschoolers.

As part of the Cost, Quality and Outcomes Study, Peisner-Feinberg and Burchinal (1997) examined the quality of centre-based care in relation to cognitive and socioemotional developmental outcomes for infants, toddlers and preschool aged children. This was a longitudinal study in which outcomes were measured at the preschool age for both children enrolled in infant-toddler
centres and in preschool centres. The researchers measured four components of childcare quality including the quality of the classroom environment, teacher sensitivity, child-centeredness and teacher responsiveness. Child outcomes included both cognitive (e.g. language development) and socioemotional (behaviour, sociability, and attitudes) outcomes. They found a small relationship between closer teacher-child relations and fewer behaviour problems, higher sociability, and positive child attitudes toward childcare.

Also using data collected in the Cost, Quality and Outcomes Study, Phillipsen, Burchinal, Howes, and Cryer (1997) compared process quality with the structural features of childcare. They identified process quality as the experience of children in childcare. Indicators of process quality included caregiver-child interactions and activities and materials in the environment. Structural features of childcare included child-adult ratio, group size, the education and training of caregivers, caregiver wages, staff turnover, and other economic conditions of centres. Caregiver child interactions included teacher sensitivity and responsiveness. The researchers concluded that process quality was higher in infant-toddler centres with moderately experienced, better paid caregivers and more experienced directors. Low ratio also predicted both caregiver sensitivity and responsiveness. However, the overall process quality in infant-toddler rooms was assessed as minimal on the Infant Toddler Environment Rating Scale.

De Kruf, McWilliam, Ridley and Wakely (2000) investigated patterns of teachers’ interaction behaviours with toddlers in early childhood centres. They categorized the patterns into four clusters called average, elaborative, controlling and nonelaborative. The caregiver behaviours analyzed were redirecting, introducing, following children’s leads, informing, elaborating, acknowledging, praising and affect. Caregivers who showed very positive affect,
very high elaborative responses, follows and praising, and very low redirects were categorized as elaborative. High introducing, informing, acknowledging and praising combined with a moderate affect characterized the nonelaborative cluster. The controlling cluster included caregivers who had high redirecting scores, very low scores on the other six behaviours, combined with very low affect. The caregivers in the average cluster had average ratings of the seven behaviours combined with moderately high affect. De Kruf et al. compared these behaviour clusters with teacher education, sensitivity, classroom quality and child engagement. They found that the elaborative behaviour cluster was related to higher teacher sensitivity compared to the average and controlling behaviour clusters. The average and nonelaborative behaviour clusters were associated with higher teacher sensitivity than the controlling behaviour cluster. There was a small difference in caregiver education between the elaborating and the controlling clusters where the caregivers in the elaborating cluster had more education. Lower scores on classroom quality and child engagement were related to the controlling behaviour cluster of caregivers compared to the other clusters of caregivers.

Leavitt (1995), in a qualitative study, described the emotional culture of the infant-toddler childcare centres she observed in terms of daily practices, regulative norms, caregiver beliefs, emotional labour and construction of the “anti-self”. She interpreted the culture of the centres as environments lacking reciprocity and empathy and she thought that the caregivers were emotionally alienated from the children for whom they cared. She described the caregivers as insensitive, rejecting, unengaged and controlling. The observed emotional culture included many instances of what she referred to as emotional estrangement which she considered in terms of the caregiver’s emotional labour. She referred to emotional labour as transformed emotional
responsiveness where management of feelings becomes publicly observable and sold for a wage. Leavitt argued that when caregivers are unable to cope with the emotional labour of caregiving they become unable to respond to children empathetically. She concluded that “emotionally responsive caregiving requires attention to feeling, involvement, connection, compassion, respect, comfort and nurturance - realms of experience neglected across our culture” (p.17). She suggested that humanizing childcare will require changes to our beliefs and commitments.

Goldstein (1998), in another qualitative study, described a more positive caring environment in an early childhood primary classroom in a school setting. In this study she applied an ethic of care to early childhood education in which she describes caring as an action rather than an attribute. Goldstein describes a caring encounter as one where the caregiver meets the one cared-for with full attention and receptivity to the other’s perspective and situation. She stated that caregivers can “think of caring as a sound foundation for curricular decision-making” (Goldstein, p. 247). She suggested that engrossment and motivational displacement can be behavioural indicators of caring. She characterized the teacher she observed as an example of a caring teacher. Goldstein stated that the teacher evaluated individual goals, assessed priorities, balanced conflicting demands while considering context and individual needs to make care-centered pedagogical and curricular decisions. So, according to Goldstein, caring means thoughtful actions for the cared-for based on empathetic engrossed encounters.

All of the above studies took place either in Sweden or the U.S.A. The centres examined in Sweden seemed to be of high quality (Hagekul & Bohlin, 1995 and Hedin, Ekholm & Andersson, 1997), while the American centres frequently showed mediocre quality. These differences may be due to the combination of the different structural variables (wages, education,
ratio, group size, etc.). The Swedish studies both focused on outcomes based on differences in process indicators of care. The researchers described differences in the emotional tone and the climate of centres. The American studies were concerned with identifying caregiver behaviours associated with high quality care. Given the assumption that caregiver behaviours should be the critical component [or the heart as McCartney et al. (1997) state] of high quality care, it is interesting to note that the associations between caregiver sensitivity and responsiveness and other variables were generally small. Possibly the average quality of the centres influenced the amount and/or effect of positive caregiving. Leavitt pointed to this possibility in her study where the observed care seemed to be of low quality. She suggested that the emotional labour of the caregivers is undervalued and denied by the caregivers themselves which leads to a negative emotional culture. Since childcare in Canada operates within a different system featuring different structural features than either Sweden or the U.S., it is useful to consider how caregiver-child interactions relate to the structural features of Canadian childcare.

Goelman, H. et al. (2000) examined the quality of care in childcare centres in several Canadian provinces comparing indicators of process quality to structural features of quality. The structural features included centre characteristics, staff wages and working conditions and staff characteristics and attitudes. The indicators of process of quality included sensitive, attentive, engaged, non-harsh caregiver behaviours and developmentally supportive activities and materials. They concluded that higher levels of staff sensitivity were associated with the caregiver characteristics of higher wages, higher levels of ECCE specific education, better benefits, and higher levels of staff satisfaction with the centre and colleagues. Centre characteristics associated with higher levels of staff sensitivity included the centre being used as a practicum site, the centre
receiving subsidized rent, favourable staff:child ratios and a non-profit auspice. However, the authors stated their concern with the overall lower level of quality in infant/toddler rooms as well as with the finding of almost 8% of programs having such a low level of care as to compromise development (Goelman et al., 2000).

These studies seem to indicate that positive child-caregiver relationships are related to positive social and emotional outcomes for children. Positive relationships appear to be associated with many caregiver characteristics including moderate experience, higher wages and better benefits, higher level of overall education, higher levels of ECCE specific education, and higher levels of staff satisfaction with the centre and colleagues. In addition, positive relationships also seem to be related to more experienced directors to low child-adult ratio, to small group sizes, to a non-profit auspice, to the centre being used as a practicum site and to the centre receiving subsidized rent. In the qualitative studies the caregiver's ability to feel and show empathy for children emerges as a major component of positive caregiving. While the research refers to process quality, including interactions between caregivers and children and suggests that sensitive caregiving is the heart of definitions of quality care, little is known about the working conditions and characteristics of sensitive caregivers.

1.2) Purpose of the Study

Using data collected in the You Bet I Care! Project (Goelman et al., 2000), this exploratory study examined which structural indicators of quality differentiated between caregivers who received high sensitivity scores on the Caregiver Interaction Scale (Arnett, 1989) and those who received low scores. Because both the characteristics of the caregiver as well as features of a particular centre could affect emotionally responsive caregiving, both of these kinds of structural indicators of quality were considered.
The structural indicators of quality, which refer to *caregiver characteristics*, examined in this study included caregiver education, attitudes, personal history and background, as well as specific working conditions. The indicators of quality, which refer to *features of the centres*, included the number and ages of the children who attend at the centre, the financial organization of the centre, how the centre is organized, and the overall staff working conditions. These factors were considered to be important because they may affect caregiver’s skills, stress level and emotional availability. Leavitt (1995) described the work that caregivers do as emotional labour. She suggested that when caregivers are unable to cope with this emotional labour they become unable to respond to children empathically. Some of the indicators of quality previously identified such as child-caregiver ratio, caregiver education and caregiver wages may contribute to quality of care by supporting the caregiver’s ability to to provide emotional labour. If caregivers are able to respond to children empathetically, they may create the individualized curriculum described by Goldstein that enhances the process quality of the centre.

The caregiver and centre characteristic variables chosen for examination in this study were expected to be related to caregiver sensitivity by providing caregivers with skills and by influencing caregiver attitudes and beliefs. If these characteristics, of the centre or caregiver, provide resources that enhance caregivers’ emotional availability, the caregivers may then be able to attend to feelings, connections, compassion, respect, comfort and nurturance (Leavitt, 1995), all expressions of empathy. Therefore, the examined structural indicators of quality will be associated with caregiver sensitivity.
Chapter 2
Methodology

2.1) Participants

The participants were 318 caregivers employed in 234 childcare centres in six provinces and one territory in both rural and urban Canadian communities. The observed caregivers included 31 assistant teachers, 213 teachers and 74 supervisors who worked for at least 30 hrs per week with one group of children and who had been employed at the centre for at least 12 months. In this study an assistant teacher was defined as a person who works with children under the direction of another teacher. A teacher was defined as a person who has primary responsibility for a group of children and may supervise assistants. A supervisor was defined as a person who has primary responsibility for a group of children and has supervisory responsibility for teachers. Caregivers working in non-profit centres accounted for 51.4% of the subjects. One hundred and fourteen worked in programs for children aged birth to 3 years (infant/toddler rooms) while two hundred and four worked in programs for children aged 3 to 6 years (preschool rooms).

2.2) Instrumentation

The data were collected through two questionnaires and the Caregiver Interaction Scale (Arnett, 1989). The questionnaires measured structural features of quality while the CIS assessed caregiver sensitivity and responsiveness. The questionnaires, a Centre Questionnaire and a Staff Questionnaire were developed specifically for the You Bet I Care! study (Goelman et al.). The questionnaires were pre-tested in 15 centres with follow-up calls to explore comments. Using both closed and open-ended questions, the Centre Questionnaire collected information about the children enrolled, the centre’s financial organization and staff complement, changes in policies and practices, high and low wages paid to staff in different positions, staff benefits, turnover and vacancies and most current problems. The Staff Questionnaire collected information on the following factors:

• the staff person’s child care experience, wages and working conditions,

• the staff person’s education, participation in professional development,
The Staff person's involvement in other paid work,

• the staff person's feelings about the specific centre in which s/he worked and about the
  child care field in general,

• the staff person's personal demographic information, and

• the staff person's views about what would make child care a more satisfying work
  environment.

The Caregiver Interaction Scale assessed, on a four-point scale, teacher sensitivity, harshness
and detachment. Trained observers scored the CIS on the specific target staff. The inter-rater
agreement levels of the observers ranged from 85% to 100%. Previous research (Whitebook,
Howes & Phillips, 1990) suggesting that scores on the scale predict children's language
development and attachment security indicates the validity of the CIS.

2.3) Procedures

The original YBIC project involved three studies. The first study described characteristics
of childcare centres in Canada (Doherty et al. 2000). The data set used for the current study
was collected in Study 2 of YBIC, which, as well as including data about centres and staff, also
included observations of specific centres and staff in order to identify which factors predict
process quality, including teacher–child interactions and stimulating learning environments
(Goelman et al., 2000). YBIC also included a director questionnaire, which will not be included
in the current. Study 3 of YBIC was similar to Study 2 but focused on family childcare centres.
The current study further explored which caregiver characteristics and attitudes predicted sensitive
caregiving, comparing the characteristics of caregivers who received high scores on the CIS
with those of caregivers who received low scores.

In the YBIC project, the selection of observed centres and staff was begun with the most
current list of childcare centres in each of the six provinces and the Yukon Territory. All of the
centres (14) in the Yukon were included and all the Saskatchewan centres were non-profit centres.
Centres chosen for the study served children between birth and six years of age that operated
for at least six hours a day. Only one centre from within multi-centre sites was chosen and the centres that had been involved in pretests of the questionnaires were eliminated. Approval of the procedures and data collection was received from the Behavioural Research Ethics Board of the University of British Columbia. Directors of 314 childcare centres were mailed a letter explaining the project. Those directors were approached through telephone calls to solicit participation. Two hundred and thirty nine centres agreed to participate. Written descriptions of the study, the questionnaires for the directors, the centre and all eligible teachers, and consent for observation forms were mailed to the centres. Centre directors completed the centre questionnaire. The directors selected the staff person to be observed.

In the original study trained observers rated the quality of the centre with two instruments, which were the Caregiver Interaction Scale (Arnett, 1989), and either the Early Childhood Environment Rating Scale –Revised edition (Harms, Clifford, & Cryer, 1998) or the Infant/Toddler Environment Rating Scale (Harms & Clifford, 1990). The two environment rating scales measure the overall process quality of childcare programs. The CIS focuses specifically on the quality of the caregiver/child interactions. Using both video tapes and field observations, observers were trained in the use of all three instruments until they reached and inter-rater reliability of 85%. During a second check of inter-rater reliability conducted as the data were collected, the inter-rater reliability on the CIS ranged between 85% and 100%.

Only the data collected from the CIS were used in the current study. When the data were collected, an observer, with the CIS, rated one staff member selected by the director. The centre director, the owner-operator or the senior person in the role of the director in large centres answered the centre questionnaire while the staff members who worked directly with the children and who were the target staff members observed for the CIS answered the staff questionnaire. Both the centre questionnaire and the staff questionnaire provided centre characteristics. The staff questionnaire also provided data about caregiver characteristics.

2.4) Data Analysis

Structural indicators of quality considered included both characteristics of the caregiver
and characteristics of the centre. These variables were identified through the centre questionnaire and the staff questionnaire. The centre characteristics examined were children served, financial organization, centre organization and wages and working conditions. The caregiver characteristics were childcare experience, educational background, professional development, personal background, and attitudes toward childcare including feelings about the child care field as well as feelings about his or her own centre. These variables were considered with reference to caregivers who scored in the top half on the CIS compared to the caregivers who scored in the bottom half. The specific variables considered are listed in Appendix A. The data were examined considering the combined scores of all observed caregivers, the scores of the caregivers in only the infant/toddler rooms, and the scores of the caregivers in only the 3-6 year old rooms.

T-tests or Chi-square tests were used to analyze the data with the Statistics Program for Social Sciences computer program. These tests were chosen because they predict the likelihood of one variable occurring in the presence of the other variable. The Chi-square tests were used for data that fell into categories and the T-tests were used for the data that were scored on interval or ratio scales.
Chapter 3

Results

The variables, which were associated with caregiver sensitivity included both features of the centres and characteristics of the caregivers and are included in the appendix. The results were analyzed first considering the scores of all the observed caregivers together, and then as two separate groups: infant/toddler caregivers, and caregivers of children aged three to six years.

3.1) All Observed Caregivers

3.1a) Features of the Centre: Financial issues

Several variables which described financial aspects of the centre were associated with caregiver sensitivity. As shown in Table 1, infant fees were significantly higher in centres with higher levels of caregiver sensitivity than they were in centres with lower levels of sensitivity. The same pattern held for preschool aged children. Higher levels of caregiver sensitivity were also found in centres that received a higher proportion of revenue from wage grants, training grants, when a higher proportion of the budget went to staff benefits and when a smaller percentage went to pay utilities. As shown in Table 2, caregiver sensitivity was associated with higher highest wages for assistants and higher lowest wages for the supervisors. And finally, caregivers received higher sensitivity scores when the centre received in-kind donations for rent, for utilities, for janitorial services or for administration services caregivers received higher sensitivity scores. (See Table 3)
Table 1

Features of the Centre: Fees, Grants & Budgets

High and Low Median Split of the Mean Sensitivity Scores of All Observed Caregivers

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>t</th>
<th>p</th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
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<td>Infant fees</td>
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<td>$544.48</td>
<td>127.44</td>
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<tr>
<td>Low sensitivity</td>
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<td></td>
<td>101</td>
<td>$544.48</td>
<td>127.44</td>
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<tr>
<td>High sensitivity</td>
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<td></td>
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<td>$399.80</td>
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<td></td>
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<td>Percent of govt. grants for wages</td>
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<td>&lt;.001</td>
<td>101</td>
<td>4.83%</td>
<td>7.13</td>
</tr>
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<td>Low sensitivity</td>
<td></td>
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<td>101</td>
<td>4.83%</td>
<td>7.13</td>
</tr>
<tr>
<td>High sensitivity</td>
<td></td>
<td></td>
<td>110</td>
<td>8.43%</td>
<td>7.70</td>
</tr>
<tr>
<td>Percent of govt. grants for training</td>
<td>-2.09</td>
<td>&lt;.038</td>
<td>80</td>
<td>.56%</td>
<td>1.94</td>
</tr>
<tr>
<td>Low sensitivity</td>
<td></td>
<td></td>
<td>80</td>
<td>.56%</td>
<td>1.94</td>
</tr>
<tr>
<td>High sensitivity</td>
<td></td>
<td></td>
<td>76</td>
<td>1.41%</td>
<td>2.97</td>
</tr>
<tr>
<td>Percent of budget spent on staff benefits</td>
<td>-2.23</td>
<td>&lt;.026</td>
<td>125</td>
<td>7.17%</td>
<td>5.67</td>
</tr>
<tr>
<td>Low sensitivity</td>
<td></td>
<td></td>
<td>125</td>
<td>7.17%</td>
<td>5.67</td>
</tr>
<tr>
<td>High sensitivity</td>
<td></td>
<td></td>
<td>121</td>
<td>8.97%</td>
<td>6.91</td>
</tr>
<tr>
<td>Percent of budget spent on utilities</td>
<td>2.36</td>
<td>&lt;.01</td>
<td>124</td>
<td>6.21%</td>
<td>7.63</td>
</tr>
<tr>
<td>Low sensitivity</td>
<td></td>
<td></td>
<td>124</td>
<td>6.21%</td>
<td>7.63</td>
</tr>
<tr>
<td>High sensitivity</td>
<td></td>
<td></td>
<td>104</td>
<td>4.14%</td>
<td>5.54</td>
</tr>
</tbody>
</table>
Table 2

Features of the Centre: Wages

High and Low Median Split of the Mean Sensitivity Scores of All Observed Caregivers

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>t</th>
<th>p</th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest gross hourly rate of assistant teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low sensitivity</td>
<td>-2.04, (148)</td>
<td>&lt; .043</td>
<td>63</td>
<td>$8.90</td>
<td>2.41</td>
</tr>
<tr>
<td>High sensitivity</td>
<td></td>
<td></td>
<td>87</td>
<td>$9.75</td>
<td>2.58</td>
</tr>
<tr>
<td>Lowest gross hourly rate of teacher or supervisor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low sensitivity</td>
<td>-1.93, (263)</td>
<td>&lt; .054</td>
<td>100</td>
<td>$13.15</td>
<td>4.20</td>
</tr>
<tr>
<td>High sensitivity</td>
<td></td>
<td></td>
<td>99</td>
<td>$13.72</td>
<td>3.72</td>
</tr>
</tbody>
</table>
Table 3

Features of the Centre: In-Kind Donations
Scores of All Observed Caregivers

<table>
<thead>
<tr>
<th>CENTRE RECEIVED IN-KIND DONATIONS FOR:</th>
<th>$\chi^2(1)$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rent</td>
<td>10.34</td>
<td>&lt; .002</td>
</tr>
<tr>
<td>Utilities</td>
<td>9.90</td>
<td>&lt; .002</td>
</tr>
<tr>
<td>Janitorial services</td>
<td>8.26</td>
<td>&lt; .005</td>
</tr>
<tr>
<td>Administrations services</td>
<td>5.88</td>
<td>&lt; .020</td>
</tr>
</tbody>
</table>
3.1b) Features of the centre: Staff development, centre structure & administration, characteristics of the children and student supervision

Centre support of staff development was associated with caregiver sensitivity. Caregivers received higher sensitivity scores when the centre provided in-service training:

- for providing culturally diverse programs $\chi^2(1) = 5.270, p < .025$
- for caring for a child with disabilities or $\chi^2(1) = 7.47, p < .009$
- for programming for a child with developmental delays $\chi^2(1) = 10.698, p < .001$

Certain aspects of the centre structure and some administration issues were also associated with caregiver sensitivity. Caregivers had higher sensitivity scores when:

- the centre was non-profit $\chi^2(1) = 6.815, p < .010$
- there was a written job contract and $\chi^2(1) = 4.581, p < .035$
- there was a staff manual outlining staff policies $\chi^2(1) = 5.093, p < .031$

Some of the variables, which were associated with sensitivity, referred to the nature of the caregivers' work. Caregiver sensitivity was associated with (see Table 4):

- more children who spoke neither French nor English at home,
- more children with special needs who attended the centre, and
- more time spent supervising practicum students.
Table 4

Features of the Centre: Characteristics of the Children, Student Supervision

High and Low Median Split of the Mean Sensitivity Scores of All Observed Caregivers

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>t</th>
<th>p</th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children speak neither French nor English at home</td>
<td>-2.37(216)</td>
<td>&lt; .019</td>
<td>142</td>
<td>1.12</td>
<td>3.56</td>
</tr>
<tr>
<td>Low sensitivity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High sensitivity</td>
<td>144</td>
<td>2.64</td>
<td>6.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children with special needs in centre</td>
<td>-2.72(182)</td>
<td>&lt; .007</td>
<td>134</td>
<td>1.33</td>
<td>1.41</td>
</tr>
<tr>
<td>Low sensitivity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High sensitivity</td>
<td>134</td>
<td>2.15</td>
<td>3.19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time spent on supervising practicum students</td>
<td>-2.57(268)</td>
<td>&lt; .011</td>
<td>156</td>
<td>7.17</td>
<td>11.34</td>
</tr>
<tr>
<td>Low sensitivity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High sensitivity</td>
<td>153</td>
<td>11.35</td>
<td>16.62</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.1c) Caregiver Characteristics

When the scores of all observed caregivers were considered, higher sensitivity scores were recorded when they were more satisfied with pay and promotion opportunities, rated their work as stimulating and challenging, reported feeling more emotionally drained at the end of the day, felt the centre supported the families of the children in the centre, and had fewer children under the age of 13 at home (See Table 5). In addition, they received higher sensitivity scores when they:

- felt the public at large respected them $\chi^2(1) = 4.72, \ p < .047$
- did not expect to be working in the field in three years $\chi^2(1) = 4.383, \ p < .040$
- had a higher education in any subject $\chi^2(6) = 20.493, \ p < .00$

and

- had a higher ECE specific education (Figure 2) $\chi^2(6) = 15.346, \ p < .018$
Table 5

Characteristics of the Caregiver

High and Low Median Split of the Mean Sensitivity Scores of All Observed Caregivers

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>t</th>
<th>p</th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated their work as stimulating and challenging</td>
<td>-2.47</td>
<td>&lt; .014</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(318)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Sensitivity</td>
<td>162</td>
<td>4.17</td>
<td>.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Sensitivity</td>
<td>157</td>
<td>4.37</td>
<td>.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reported feeling more emotionally drained at the end of the day</td>
<td>-2.79</td>
<td>&lt; .006</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(317)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Sensitivity</td>
<td>162</td>
<td>2.73</td>
<td>.96</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Sensitivity</td>
<td>157</td>
<td>3.02</td>
<td>.90</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Felt the centre supported the families of the children in the centre</td>
<td>-2.23</td>
<td>&lt; .026</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(297)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Sensitivity</td>
<td>161</td>
<td>4.48</td>
<td>.73</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Sensitivity</td>
<td>156</td>
<td>4.65</td>
<td>.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Had fewer children under the age of 13 at home</td>
<td>2.27</td>
<td>&lt; .024</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(307)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Sensitivity</td>
<td>165</td>
<td>.60</td>
<td>.92</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Sensitivity</td>
<td>158</td>
<td>.39</td>
<td>.71</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.2 Caregivers of Infants or Toddlers

3.2a) Features of the Centre

Infant/toddler caregivers had higher sensitivity scores when: fewer toddlers were enrolled in the centre, the children were enrolled in the centre for one year or more, a smaller percentage of revenue came from parent fees, and a smaller percentage of the budget was allocated for rent or mortgage payments (See Table 6). In addition, higher caregiver sensitivity scores were associated with centres providing in-service training related to caring for children with physical disabilities, or to caring for children with developmental delays. Caregivers obtained higher sensitivity scores when centres received in kind donations for rent, for utilities, for janitorial services, or for administrative services. And finally, having a separate staff washroom was associated with caregiver sensitivity (See Table 7).
Table 6
Features of the Centre: Numbers, Revenue & Budget
High and Low Median Split of the Mean Sensitivity Scores of Caregivers of Infants and Toddlers

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>t</th>
<th>p</th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fewer number of toddlers currently enrolled in the centre</td>
<td>1.95</td>
<td>&lt; .054</td>
<td>(112)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low sensitivity</td>
<td>55</td>
<td>13.93</td>
<td>9.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High sensitivity</td>
<td>59</td>
<td>10.93</td>
<td>6.96</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Higher # of toddlers at the centre for year or more</td>
<td>1.96</td>
<td>&lt; .053</td>
<td>(101)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low sensitivity</td>
<td>49</td>
<td>10.43</td>
<td>7.35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High sensitivity</td>
<td>54</td>
<td>7.74</td>
<td>6.60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smaller % of centre’s revenue comes from parent fees</td>
<td>2.29</td>
<td>&lt; .024</td>
<td>(98)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low sensitivity</td>
<td>48</td>
<td>57.83%</td>
<td>28.56</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High sensitivity</td>
<td>52</td>
<td>45.29%</td>
<td>26.28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smaller % of centre’s budget spent on rent or mortgage</td>
<td>2.15</td>
<td>&lt; .035</td>
<td>(77)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low sensitivity</td>
<td>44</td>
<td>11.16</td>
<td>12.99</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High sensitivity</td>
<td>42</td>
<td>5.98</td>
<td>9.15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 7

Features of the Centre: In-Service Training, In-Kind Donations, Staff Facilities

Scores of Caregivers of Infants and Toddlers

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>$\chi^2(1)$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-service training related to caring for children with physical disabilities</td>
<td>5.70</td>
<td>&lt; .023</td>
</tr>
<tr>
<td>In-service training related to caring for children with developmental delays</td>
<td>5.42</td>
<td>&lt; .026</td>
</tr>
<tr>
<td>Centres received in kind donations for rent</td>
<td>8.10</td>
<td>&lt; .005</td>
</tr>
<tr>
<td>Centres received in kind donations for janitorial services</td>
<td>8.72</td>
<td>&lt; .005</td>
</tr>
<tr>
<td>Centres received in kind donations for administrative services</td>
<td>4.45</td>
<td>&lt; .046</td>
</tr>
<tr>
<td>A separate staff washroom</td>
<td>5.23</td>
<td>&lt; .025</td>
</tr>
</tbody>
</table>
3.2b) Caregiver Characteristics

As shown in Table 8, caregivers of infants and toddlers had higher sensitivity scores when they:

- felt more positive about pay and opportunities for promotion,
- felt their work was stimulating, and
- felt there was too little time to do all that needs to be done.

In addition, caregivers received higher sensitivity scores when they felt respected as a professional by the families in the centre, $\chi^2(1) = 4.682, p < .046$. 
Table 8

Caregiver Characteristics

High and Low Median Split of the Mean Sensitivity Scores of Caregivers of Infants and Toddlers

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>$t$</th>
<th>$p$</th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feel positive about pay and opportunities</td>
<td>-2.65</td>
<td>&lt; .009</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>for promotion</td>
<td>(113)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low sensitivity</td>
<td>55</td>
<td>2.71</td>
<td>1.57</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High sensitivity</td>
<td>60</td>
<td>3.48</td>
<td>1.56</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feel work is stimulating</td>
<td>-1.93</td>
<td>&lt; .056</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low sensitivity</td>
<td>(111)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High sensitivity</td>
<td>59</td>
<td>4.39</td>
<td>.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feel that there is too little time to do</td>
<td>-1.90</td>
<td>&lt; .059</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>what needs to be done</td>
<td>(107)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low sensitivity</td>
<td>53</td>
<td>3.30</td>
<td>1.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High sensitivity</td>
<td>56</td>
<td>3.68</td>
<td>1.05</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.3) Caregivers of Children Aged Three to Six Years

3.3a) Features of the Centre

As shown in Table 9, caregivers of children between 3 and 6 years of age received higher sensitivity scores when:

- a larger percent of revenue comes from govt. grants to increase wages,
- a larger percent of revenue comes from govt. grants for training,
- a smaller percent of revenue comes from govt. grants for equipment,
- there are more children with special needs enrolled in the centre,
- they spend more time supervising practicum students,
- they spend less time on snack/meal preparation, and
- they have shorter regular work hours.
Table 9

Features of the Centre High and Low Median Split of the Mean Sensitivity Scores of Caregivers of Children Aged Three to Six Years

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>t</th>
<th>p</th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Larger % of revenue comes from govt. grant to increase wages</td>
<td>-2.24</td>
<td>&lt; .027</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low sensitivity</td>
<td>(130)</td>
<td></td>
<td>59</td>
<td>4.81</td>
<td>6.78</td>
</tr>
<tr>
<td>High sensitivity</td>
<td></td>
<td></td>
<td>73</td>
<td>7.71</td>
<td>7.87</td>
</tr>
<tr>
<td>Larger % of revenue comes from govt. grant for training</td>
<td>-2.04</td>
<td>&lt; .036</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low sensitivity</td>
<td>(98)</td>
<td></td>
<td>46</td>
<td>.39</td>
<td>1.54</td>
</tr>
<tr>
<td>High sensitivity</td>
<td></td>
<td></td>
<td>54</td>
<td>1.37</td>
<td>2.93</td>
</tr>
<tr>
<td>Smaller % of revenue comes from govt. grant for equipment</td>
<td>2.20</td>
<td>&lt; .030</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low sensitivity</td>
<td>(123)</td>
<td></td>
<td>60</td>
<td>17.43</td>
<td>21.97</td>
</tr>
<tr>
<td>High sensitivity</td>
<td></td>
<td></td>
<td>65</td>
<td>9.82</td>
<td>15.95</td>
</tr>
<tr>
<td>Less time spent on snack/meal preparation</td>
<td>2.27</td>
<td>&lt; .025</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low sensitivity</td>
<td>(183)</td>
<td></td>
<td>95</td>
<td>17.40</td>
<td>13.95</td>
</tr>
<tr>
<td>High sensitivity</td>
<td></td>
<td></td>
<td>107</td>
<td>13.29</td>
<td>11.58</td>
</tr>
<tr>
<td>More time spent supervising practicum students</td>
<td>-2.79</td>
<td>&lt; .006</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low sensitivity</td>
<td>(184)</td>
<td></td>
<td>95</td>
<td>6.76</td>
<td>10.88</td>
</tr>
<tr>
<td>High sensitivity</td>
<td></td>
<td></td>
<td>107</td>
<td>12.23</td>
<td>16.70</td>
</tr>
<tr>
<td>Shorter regular work hours</td>
<td>2.39</td>
<td>&lt; .018</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low sensitivity</td>
<td>(206)</td>
<td></td>
<td>98</td>
<td>38.32</td>
<td>4.28</td>
</tr>
<tr>
<td>High sensitivity</td>
<td></td>
<td></td>
<td>110</td>
<td>36.83</td>
<td>4.67</td>
</tr>
<tr>
<td>Higher number of children with special needs enrolled</td>
<td>-2.12</td>
<td>&lt; .036</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low sensitivity</td>
<td>(124)</td>
<td></td>
<td>81</td>
<td>1.31</td>
<td>1.45</td>
</tr>
<tr>
<td>High sensitivity</td>
<td></td>
<td></td>
<td>90</td>
<td>2.13</td>
<td>3.35</td>
</tr>
</tbody>
</table>
Caregiver sensitivity was also associated with (see Table 10): 

- the centre having practicum students,
- the centre providing in-service training for anti-bias or cultural diversity,
- all staff members having an opportunity to have input on the content of staff meetings,
- caregivers making decisions about things that directly affect them,
- the centre providing written job contracts,
- the centre providing written salary schedules,
- the centre providing a staff manual outlining staff policy,
- the centre having a staff room, and
- the centre having a non-profit auspice.
Table 10
Features of the Centre:
Scores of the Caregivers of Children Aged Three to Six Years

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>$\chi^2(1)$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centre had practicum students</td>
<td>4.13</td>
<td>&lt; .045</td>
</tr>
<tr>
<td>In-service training for anti-bias/ cultural diversity provided</td>
<td>5.15</td>
<td>&lt; .032</td>
</tr>
<tr>
<td>All staff members had an opportunity to have input on the content of staff meetings</td>
<td>4.84</td>
<td>&lt; .038</td>
</tr>
<tr>
<td>Caregivers made decisions about things that directly affect them</td>
<td>7.94</td>
<td>&lt; .005</td>
</tr>
<tr>
<td>Written job contracts provided</td>
<td>9.10</td>
<td>&lt; .003</td>
</tr>
<tr>
<td>Written salary schedules provided</td>
<td>7.65</td>
<td>&lt; .007</td>
</tr>
<tr>
<td>A staff manual outlining staff policy provided</td>
<td>5.55</td>
<td>&lt; .023</td>
</tr>
<tr>
<td>There was a staff room</td>
<td>4.24</td>
<td>&lt; .044</td>
</tr>
</tbody>
</table>
3.3b) Caregiver Characteristics

Caregivers, of children aged three to six years of age, received higher sensitivity scores when they do not expect to be working in the field in three years $\chi^2(1) = 4.860, p < .035$, have more education in any subject area $\chi^2(6) = 17.929, p < .006$ and have more ECE specific education $\chi^2(6) = 26.611, p < .000$. 
Chapter 4
Discussion

For many of the variables analyzed, the results supported the hypothesis that the presence of that particular variable would be associated with higher levels of caregiver sensitivity. The examined variables were chosen because the research literature suggests that they might provide caregivers with the skills, attitudes, and/or support that would allow them to respond to children with empathy. Leavitt (1995) characterized the work of caregivers as emotional labour consisting of attention to feelings, connections, compassion, respect, comfort, respect and nurturance. Attending to these issues requires empathy. Empathetic understanding of a child leads to sensitivity because the caregiver understands the child's concerns. Leavitt argued that when caregivers' labour was unsupported and undervalued they became detached. Empathy for the cared-for is impossible when the caregiver feels detached. So, when particular variables are associated with caregiver sensitivity it may mean that the variables in some way enhanced the caregiver's emotional availability and, therefore, their ability to feel and express empathy, which would result in sensitive responses.

Ecological systems theory (Bronfenbrenner, 1979) suggests that there are attributes both within and outside the childcare centre, which might impact the sensitivity of the caregiver, and thus the development of the child. The variables discussed below each represent different aspects of the four systems described in this theory. For example, financial issues could be the result of government support (or lack of support) and may thus be situated in the macrosystem. Caregiver attitudes could affect the microsystem of the childcare centre and the mesosystem (through communication between the caregiver and parents) and are frequently developed and maintained in the larger exosystem.

Both features of the centres and characteristics of particular caregivers were associated with higher levels of caregiver sensitivity. Features of the centre, related to caregiver sensitivity, included financial issues, centre structures, the challenge of the work,
and support of staff development and administration issues. Characteristics of the caregiver associated with sensitive caregiving included financial issues, feelings about the specific centre, attitudes, evidence of emotional labour, feelings of being supported, and personal characteristics.

4.1) Features of the Centres

4.1a) All observed caregivers

Many of the variables that were associated with higher levels of caregiver sensitivity were financial issues. The data revealed that caregivers in centres with a higher percentage of revenue for wages were more sensitive to children. For example, higher monthly fees were associated with higher sensitivity scores for staff in infant centres and in centres for children aged three to six years of age. Higher fees may mean that a centre has more funds available for staff and/or the curriculum. This support may have enhanced the caregivers' ability to be emotionally available to children by releasing them from concerns about their own financial responsibilities or by providing operating funds allowing the caregivers the satisfaction of providing an interesting program.

Other results also suggested that the financial security of the caregivers related to their ability to provide sensitive caregiving. For example, sensitive caregiving was found among caregivers who worked in centres where:

- a larger percentage of revenue came from government grants for wages or for staff training,
- a greater percentage of the budget went towards staff benefits,
- the highest wages for the assistant were higher, and when the lowest wages for the supervisor were higher.

One could assume that if caregivers are poor, they will likely spend a certain amount of emotional energy worrying about their own needs, which could be emotionally draining. When they are adequately paid they may spend less time focusing on their own financial issues and thus expend less emotional energy on those issues. So, caregivers may be more
able to be emotionally available to children because they are not excessively worried about their own finances.

Financial issues affecting the centre’s indirect ability to provide funds for staff and program also related to caregiver sensitivity scores. When a lower percent of the budget went towards utilities, higher sensitivity scores were obtained. Caregivers were rated as more sensitive when the centre received in-kind donations for rent, utilities and janitorial services. These indicators indirectly affect the availability and amount of financial support for the caregivers and program costs. In addition, auspice was related to sensitivity scores: caregivers in non-profit auspices, as a group, had higher caregiver sensitivity scores than did caregivers in for-profit centres. A non-profit auspice means that all revenue not spent on operating costs returns to the centre rather than leaving the centre. This can mean that wages, which seem to be related to caregiver sensitivity, could be increased.

Another category of centre features related to caregiver sensitivity was the challenge of the work. Having more children enrolled who spoke neither French nor English at home and having more children with special needs in the centre both predicted caregiver sensitivity. The intellectual stimulation and challenge of caring for children who had special circumstances may have enhanced caregivers’ abilities to remain connected to their work, which in turn may have helped them to respond in a sensitive way. Higher scores were obtained on the CIS when more time was spent supervising practicum students. The presence of practicum students, and the supervision they require, may have influenced the caregivers’ reflections on their own practices leading to more sensitivity. The student’s presence may create a more intellectually stimulating work environment possibly affecting the caregivers’ interest in their work, leading to more sensitivity toward children. However, it may be that the centre was been selected as a practicum placement because it provided students with good role models of sensitive caregiving rather than the practicum students affecting caregiver sensitivity. Finally, when caregivers rated their work as stimulating and challenging, they received higher sensitivity scores possibly because they were more engaged with their work and so more interested in the process of caring.
If their centre supported professional development caregivers obtained higher sensitivity ratings. When the centre provided in-service training, for providing antibias curriculum or meeting the needs of culturally diverse children, caregivers received higher sensitivity scores. Similarly when centres provided in-service training, for caring for a child with physical disabilities and/or programming for a child with developmental disabilities, caregivers received higher sensitivity scores. And when a greater percentage of revenue came from government grants for training, caregivers were more sensitive. These factors could be both direct and indirect indicators of a caregiver's ability to respond sensitively. Training may directly strengthen caregivers' sensitivity by increasing their skills and knowledge of children. It may be an indirect support of caregiver sensitivity through the implicit suggestion that the centre and the larger government values professional knowledge (since they provide it). Knowing that others value their work and skills may encourage caregivers to also value their own work and skill, leading as Leavitt (1995) suggests, to the ability to respond in a caring way. Since each of the topics of the in-service training variables focused on how children have different needs, the training could influence caregivers' practice in a way that focused concern on individualized programs. To provide such care, caregivers would likely have to respond in an attentive, sensitive way. And indirectly, both in-service training and training provided outside the program, may simply be a characteristics of a high quality centre in which sensitive care is supported in other ways.

The final features of centres that were associated with caregiver sensitivity for all observed caregivers referred to the way the centre was administered. When there was a written job contract and a staff manual outlining staff policies, caregivers had higher sensitivity scores. A centre that has these characteristics is well organized with clearly defined expectations. In addition there is no uncertainty for the caregiver about pay and promotion opportunities. These attributes could be supportive for caregivers because they create a work climate which does not have anxiety, above and beyond the inevitable anxiety of caregiving, built in to the environment. Or the variables may be indirectly related to sensitivity because they are related to other attributes of a centre, which actually affect caregiver sensitivity.
When the scores of infant/toddler caregivers and caregivers of children aged three to six years old were considered separately, some differences between the groups appeared.

4.1b) Infant toddler caregivers

As was true when the scores of all the caregivers were considered together, when the centre received in-kind donations for rent, utilities, janitorial services and/or administration and services infant/toddler caregivers obtained higher sensitivity scores on the CIS. Freeing the centre of this budget item likely provided more funds for those items that seem to support caregiver sensitivity such as higher wages and increased financial security of the centre and, therefore, caregiver job security. And like the scores of the whole group considered together, when in-service training, related to caring for children with physical disabilities or developmental delays, was provided, caregivers also received higher sensitivity scores. Providing additional training likely strengthened caregivers’ skills in providing individualized programs that Goldstein (1998) suggests are more sensitive to children’s needs.

None of the other significant predictors, which appeared when the scores of all the caregivers were considered together, appeared when the scores of only the infant/toddler caregivers were considered. However, some variables were significant when only the scores of the infant toddler caregivers were considered that did not appear to be significant for the group as a whole. Sensitive caregiving by infant toddler caregivers was associated with a smaller percentage of revenue coming from parent fees, with a smaller percentage of the budget allocated for rent or mortgage payments and with a separate staff washroom. Sensitive infant/toddler caregivers were associated with a fewer number of children enrolled in the centre and with children being enrolled in the centre for one year or more. These variables speak to the issues of financial security, concern for the caregiver, reasonable expectations, and caregiver-child relationship development.

When a smaller percentage of revenue comes from parents, it means that financial support comes from someone other than the “users”. The other support could be from the
government, an agency, a charity, a school or a business in the case of some work-site centres. To support quality care, most governments have established regulations governing maximum group sizes and adult-child ratios. So, childcare is a labour intensive type of service in which fees from a few families must cover the cost of employing several caregivers. This is particularly true in infant/toddler centres when there are often half as many children per caregiver than in centres for older children, which means that the cost per child is much higher. When centres rely exclusively on parent fees, revenue is limited by the parents' ability to pay. So when parent fees are the only source of income, even when the fees are fairly high, there is limited revenue generated. Limited revenue means fewer funds are available for wages, materials or other components of an environment that may support caregivers’ emotional availability. Similarly when a smaller percent of the budget is allocated for rent or mortgage (in some cases 0%) more of the revenue can be directed toward supporting caregivers. Providing financial support for childcare from beyond the family locates some responsibility for children’s well being in exosystems and macrosystem rather than the microsystems of families (fees) or childcare centres (budgets). So, financial issues, within small microsystems and in the larger exosystems and macrosystems, seem to have an effect on caregivers’ abilities.

High sensitivity scores for infant/toddler caregivers were associated with having a separate staff washroom. On the surface, it may seem that this is a completely irrelevant relationship. However, in most infant/toddler centres, unlike every other imaginable work environment, the washroom is a group space that does not accommodate privacy. This is appropriate for infants and toddlers but not usually appropriate for adults. Having no separate washroom indicates two possibilities. One, the centre is old and financially challenged. The second possibility is that the needs of the caregivers are not considered. Both of these indicators could influence caregiver behaviour. The first indicates limited financial means, which may impair the centre’s ability to provide the resources to support caregiver sensitivity. The second indicates the centre’s lack of commitment to the
caregivers, which may erode their emotional resiliency possibly affecting their abilities to be sensitive to children.

Besides the impact of financial support and commitment to the caregiver, some of the centre features may influence sensitivity because they affect time or because they create an environment that makes empathetic responding too difficult. For example, more sensitive caregiving was associated with having fewer children enrolled. Trying to respond to the needs of many children may overwhelm the emotional resources of the caregiver. When the demands exceed the caregiver's resources the caregiver may become emotionally unable to provide sensitive care. Sensitive caregiving was also associated with having children enrolled in the centre for one year or more. Sensitivity develops within relationships, which take time to grow. A longer period of enrollment provides that time. So, it appears that caregiver sensitivity increased when relationships were given time to develop and when caregivers had only a few children with whom to develop a relationship.

4.1c) Caregivers of Three-to-Six Year Olds

When the scores of the caregivers of three to six year olds were considered alone, the results were different both from the infant/toddler caregivers' scores and from the scores of the whole group considered together. For some issues regarding finances, time, practicum students, length of day, physical features of the centre, and decision-making, only the scores of the caregivers of three-to-six year olds were significant (see Table 11).

A financial variable that was significant for only caregivers of preschool aged children was that when a smaller percent of revenue comes from government grants for equipment, caregivers received higher sensitivity scores. Perhaps the issue in this case wasn't lack of funds but rather that funds were available for the visible, more exciting things such as toys and equipment, but not for the less visible attributes of attending, listening, and nurturing. The later attributes involve the caregivers' emotional labour and perhaps when they are ignored caregivers feel undervalued and may even begin to undervalue the behaviours themselves.
Two other variables associated with higher levels of sensitivity for the caregivers of the three to six year olds related to time. More sensitive caregiving was associated with having shorter regular work hours as was spending less time on snack or meal preparation. The organization of the work environment influences how much time caregivers spend with children. A work schedule that requires caregivers to spend time on tasks removed from children, such as food preparation allows for less time for them to spend with children. Since they are not with the children they do not have the opportunity of caring for them sensitively. So, centre structures that lead to a lack of time may lead to caregiver detachment from children. A shorter workday may have affected caregiver sensitivity because it impacted the caregivers’ emotional energy. Being empathetic and attentive to children demands a lot of energy. A shorter workday means the demand is reasonable and can be fulfilled by the caregiver but a longer workday may sap the emotional resources of the caregiver leading to disengagement and therefore insensitive caregiving. So, issues of time affected sensitivity where both too little time with children and too much time caring for children meant less sensitive caregiving.

When all the caregivers' scores were considered together spending more time supervising practicum students was associated with caregiver sensitivity. The same result occurred when only the scores of the caregivers of the three to six year olds were considered. And in addition, for these caregivers simply having recently had practicum students in the centre resulted in a higher sensitivity score for the caregivers. As discussed earlier, perhaps the nature of the work of student supervision encourages caregivers to be more sensitive in their own practice or perhaps the centres were chosen as practicum sites because of the caregivers’ sensitivity. And possibly the presence of students changes the demands of the work place by changing the adult/child ratio allowing the caregiver more time with individual children.

The existence of a staff room was associated with high sensitivity scores for the caregivers of the three to six year olds. This is similar to the issue of separate washrooms
for infant/toddler caregivers since it addresses the needs of the caregiver in the workplace. A staff room may simply be an indicator of a well-planned, well-funded project in which many components, of high quality care, co-exist. Or it may have a direct effect by providing the caregivers with the opportunity to have a break in a quiet space allowing them to regroup their resources so that they can care for children.

The last two centre features, which were significant for only this group, were issues that describe autonomy. When all staff members had an opportunity to have input on the content of staff meetings and when caregivers made decisions about things that directly affect them caregivers were rated as more sensitive. These features refer to the amount of autonomy that caregivers have in their work. It may be possible that having some control over issues affecting them and having input into decisions about plans they will have to carry out encourages caregiver enthusiasm and commitment so they are more able to be sensitive with the children for whom they care.
Table 11

A Comparison the CIS Results:

Caregivers of Children Aged Three to Six Only / All Observed Caregivers

Considering Centre Features: Unique to Group

<table>
<thead>
<tr>
<th>Caregivers of Children aged Three to Six</th>
<th>All Observed Caregivers</th>
</tr>
</thead>
<tbody>
<tr>
<td>➢ A smaller percent of revenue comes from govt. grants for equipment.</td>
<td>➢ More enrolled children spoke neither french nor english at home.</td>
</tr>
<tr>
<td>➢ The caregiver spends less time on snack/meal preparation.</td>
<td>➢ Monthly fees were higher.</td>
</tr>
<tr>
<td>➢ The centre has practicum students.</td>
<td>➢ A greater percent of the budget went towards staff benefits and a lower percent of the budget went towards utilities.</td>
</tr>
<tr>
<td>➢ The caregiver has shorter regular work hours.</td>
<td>➢ The highest wages for the assistant were higher and the lowest wages for the supervisor were higher.</td>
</tr>
<tr>
<td>➢ There is a staff room.</td>
<td>➢ More time was spent on staff supervision.</td>
</tr>
<tr>
<td>➢ All staff members have an opportunity to have input on the content of staff meetings.</td>
<td>➢ In-service training for providing antibias/culturally diverse curriculum</td>
</tr>
<tr>
<td>➢ Caregivers made decisions about things that directly affect them.</td>
<td>➢ In-service and /or caring for a child with physical disabilities and /or programming for a child with developmental disabilities.</td>
</tr>
<tr>
<td></td>
<td>➢ When the centre received in-kind donations for rent/utilities/janitorial services/administration services.</td>
</tr>
</tbody>
</table>
4.1 d) Differences between Caregivers of Infant/toddler Caregivers and Caregivers of Children Aged Three to Six Years

All of the variables, which were associated with higher levels of caregiver sensitivity, have a logic that can be perceived. But there is less apparent logic that some variables were associated with high levels of sensitivity for only one group of caregivers. Some of the differences may be due to the smaller number of caregivers in the infant/toddler group that may mean the analysis did not have the power to detect a small relationship between the variables and caregiver sensitivity whereas the larger number of caregivers of three to six year olds allowed small but significant relationships to be identified. But, some variables appeared to be significant only for the infant/toddler caregivers, which may indicate that the nature of the work differs in some way so that different issues were of more importance to one group or the other. However, many of the variables seem similar in nature. For example each group had relationships between caregiver sensitivity and issues that related to finances, time, respect for the caregiver and intellectual challenge (see Table 12).
Table 12

A Comparison of CIS Results:

Caregivers of Aged Three to Six Years and Caregivers of Infant and Toddlers

Considering Centre Features

<table>
<thead>
<tr>
<th>Infant/toddler caregivers</th>
<th>Caregivers of three to six year olds</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Respect for the caregiver</strong></td>
<td><strong>Respect for the caregiver</strong></td>
</tr>
<tr>
<td>➢ There was a separate staff washroom.</td>
<td>➢ There is a staff room.</td>
</tr>
<tr>
<td><strong>Time</strong></td>
<td>➢ All staff members have an opportunity to have input on the content of staff meetings.</td>
</tr>
<tr>
<td>➢ The children were enrolled in the centre for one year or more.</td>
<td>➢ Caregivers made decisions about things that directly affect them.</td>
</tr>
<tr>
<td><strong>Challenge</strong></td>
<td><strong>Challenge</strong></td>
</tr>
<tr>
<td>➢ Centres provided in service training related to caring for children with physical disabilities or developmental delays.</td>
<td>➢ The centre has practicum students.</td>
</tr>
<tr>
<td><strong>Finances</strong></td>
<td>➢ There are more children with special needs enrolled in the centre.</td>
</tr>
<tr>
<td>➢ A smaller % of revenue came from parent fees.</td>
<td>➢ Caregivers spend more time supervising practicum students.</td>
</tr>
<tr>
<td>➢ A smaller % of the budget was allocated for rent or mortgage payments.</td>
<td>➢ In-service training: anti-bias/cultural diversity.</td>
</tr>
<tr>
<td>➢ Centres received in kind donations for rent, utilities, janitorial services, or administrative services.</td>
<td><strong>Finances</strong></td>
</tr>
<tr>
<td></td>
<td>➢ A smaller % of revenue comes from govt. grants for equipment.</td>
</tr>
<tr>
<td></td>
<td>➢ A larger % of revenue comes from govt. grants to increase wages or for training.</td>
</tr>
</tbody>
</table>
Some of the findings appear to be quite different between the two groups. Organization of the centre seemed to be important to caregiver sensitivity for caregivers of preschool-aged children but not for infant/toddler caregivers while group size affected caregiver sensitivity scores for infant/toddler caregivers but not the sensitivity scores of caregivers of preschool aged children (see Table 13).
### Table 13

A Comparison of CIS Results of Caregivers of Children Aged Three to Six Years and Caregivers of Infants and Toddlers Considering Centre Features: Different Issues

<table>
<thead>
<tr>
<th>Infant/toddler caregivers</th>
<th>Caregivers of three to six year olds</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Group size</strong></td>
<td><strong>Centre organization</strong></td>
</tr>
<tr>
<td>➢ Fewer toddlers were enrolled in the centre.</td>
<td>➢ The centre is non-profit.</td>
</tr>
<tr>
<td></td>
<td>➢ Written job contracts are provided.</td>
</tr>
<tr>
<td></td>
<td>➢ Written salary schedules are provided.</td>
</tr>
<tr>
<td></td>
<td>➢ There is a staff manual outlining staff policy.</td>
</tr>
</tbody>
</table>
4.2) Characteristics of the Caregivers

4.2a) All Observed Caregivers

When the responses of all observed caregivers were considered, several categories of variables, which describe characteristics of the caregivers, emerged. They included personal characteristics, caregiver attitudes toward their work, evidence of the emotional labour of the work, feelings of pride in their own centre, and feelings of being supported and valued by the larger community. Variables that reflected the attitudes of caregivers who had higher sensitivity scores were when the caregivers reported satisfaction with their pay and opportunities for promotion and when they rated their work as stimulating and challenging. That these issues were associated with higher levels of caregiver sensitivity suggests that caregivers do well when they are challenged by their work, are recognized through their wages, and perceive opportunities for further challenges and rewards.

In contrast, sensitive caregivers reported feeling both more drained at the end of the day and more frustrated by the job. It is reasonable to suggest that sensitive caregiving is emotionally draining. So, if a caregiver responds to many children in a sensitive way throughout the day, s/he will feel drained at the end of the day. One of the challenging and therefore stimulating aspects of caregivers' work is that it is emotional labour and it is difficult and therefore tiring to do. Caregivers who do not feel emotionally drained at the end of the day are perhaps avoiding the emotional labour, possibly in self-protection, and are thus not sensitive to children. Sensitive caregivers also report feeling frustrated by the job. Since many of the centres in the You Bet I Care! study were found to be of mediocre quality one explanation of this frustration is that caregivers, who expended the effort to respond sensitively, felt limited either by their own centre or by a perceived lack of support from the larger community. Perhaps, the caregivers believed that the centre was not adequately supporting the children, for and about whom they cared. The more sensitive caregivers were more likely aware of a specific child's needs and therefore more concerned if they thought the need was not being addressed. The perceived inability to meet the needs could be due to internal centre issues, such as inadequate staffing or external larger
community issues such as inadequate financial support. So the emotional labour of the caregivers’ work may lead to feeling drained and frustrated.

Two other significant variables associated with sensitive caregivers were when caregivers felt that the centre supported the families of the children in the centre and when they felt the public at large respected them. The first variable suggests that the sensitive caregivers were possibly proud of the centre at which they worked, perhaps believing that they provided a support to the families. So they may feel that their caring has a positive outcome, which may in turn influence their motivation to respond to children in a sensitive way. The second finding that feeling valued by the public at large predicts sensitive caregiving, suggests that when caregivers feel valued for their work they are more able to do the work. Since the work involves emotional labour perhaps feeling valued by the larger community helps caregivers refuel their emotional resources. Conversely, it is possible that when caregivers feel undervalued by their community that feeling actually impairs their abilities to be sensitive. So, a supportive community could enrich a centre by valuing caregivers while an indifferent community may actually harm the centre by failing to value caregivers’ work.

One unsettling finding was that more sensitive caregivers did not plan to be in the field in three years. One possible explanation of this finding is that the caregivers believed that they would not be able to maintain the kind of emotional availability to children they were currently providing and would not continue working when they could no longer provide it. Or they may be aware that their skills could allow them to work in another less draining, less frustrating, more valued career, which provides a higher salary. Taken together these findings lend support to the idea that caregiving involves emotional labour, which Leavitt (1995) suggested requires attention to aspects of emotional life that are not valued in our culture. When caregivers find the support in themselves, their centres and the larger community for attending to and valuing emotions, they are more likely to succeed in caring and to be perceived as sensitive caregivers.

Finally, three personal characteristics were associated with sensitive caregiving: when the caregivers had fewer children under the age of 13 at home, when they had a
higher education in any subject, and when they had a higher level of ECE specific education. Not having young children at home may help caregivers respond sensitively to young children at work because their resources aren’t exhausted at home. Caring for children sensitively requires energy whether at home or at work. Perhaps the demand of caring for children throughout the workday and then again throughout the evening and night simply put too high a demand on the abilities of the caregivers to be sensitive.

The findings of this study seem to indicate that higher levels of caregiver education are associated with higher caregiver sensitivity scores. However, there were some exceptions to the general trend. When caregivers had only high school education or when they either had three years post-secondary education or a post-diploma certificate, more caregivers received sensitivity scores in the low half. Whereas, those who received scores in the top half were more likely to have either a one or two year certificate or diploma or a Bachelor’s degree or more. This was similar for those with ECE specific education where more caregivers received scores in the bottom half of the total scores when they had no ECE specific training, when they had less than one year of ECE education, and when they had either a 3 year diploma or a post-diploma certificate. In contrast, those in the top half were more likely to be have either a one or two year diploma or certificate or a Bachelor’s degree or more.

Most Early Childhood Education training programs in Canada are either one or two year certificate or diploma programs. For these two groups, more caregivers received scores in the high sensitivity group than in the low sensitivity group (1 yr: high sensitivity N= 37, low sensitivity N= 35; 2 yr: high sensitivity N= 74, low sensitivity N= 53). Whereas in the two bottom groups, more caregivers received scores in the low sensitivity half than in the high sensitivity half (no ECE: high sensitivity N=11, low sensitivity N=19; less than 1 yr: high sensitivity N=4, low sensitivity N=11). So for the bottom four groups increasing ECE specific education seems to be associated with an increasing probability of caregiver sensitivity. ECE training addresses child development, communication skills and
planning curriculum, and treats discipline as a way to support children's development of prosocial skills. So, caregivers who receive this education should have the skills and knowledge necessary to respond to children in a sensitive way. Therefore, ECE specific education may support caregivers' ability to be sensitive to children.

Increased education should logically lead then to increased abilities to respond sensitively to children. However, the caregivers in this study seemed to be less likely to be sensitive when they had three years of ECE specific training either through a three-year program or when a one-year certificate was added to a diploma program. There are several possible explanations for this finding. One is that these caregivers had, based on their education, high expectations either for themselves or for their centres, which were not met. Possibly, disappointment over these unmet expectations robbed the caregivers of the emotional energy necessary to be sensitive. Another explanation could be that the numbers of caregivers in this group were too small to be clear indicators of a trend, especially when the trend seems to reverse again when caregivers have ECE Bachelor's degrees or more (3 yrs: high sensitivity N=7, low sensitivity N=17; post-diploma certificate: high sensitivity N=7, low sensitivity N=13; Bachelor's degree or more: high sensitivity N=10, low sensitivity N=7). A third explanation is that there is a confounding variable, which is related both to the three-year diploma programs and low sensitivity scores. One possibility could be the location of the centres. If most of the caregivers with three-year diplomas worked in the same jurisdiction due to specific licensing requirements, it is possible that other factors in that specific jurisdiction, such as changes in funding formulas, could impact caregiver morale. And low morale may negatively influence caregivers' abilities to perform the emotional labour aspects of their work well. So, the reasons for the finding that three years of ECE specific education relates to low sensitivity scores are unclear.
4.2b) Infant/toddler caregivers

Three characteristics that were significant when the scores of all the observed caregivers were considered were also significant when the scores of only the infant/toddler caregivers were considered: when they felt more positive about their pay and opportunities for promotion, when they felt their work was stimulating, and when they felt respected as a professional by the families in the centre. But unlike the whole group, when infant/toddler caregivers thought that there was too little time to do all that needs to be done they had higher sensitivity scores. The level of the caregivers’ commitment may relate these factors to each other. When caregivers are committed to their work they are likely to feel that they can’t get everything done. Similarly, when caregivers are committed to their work they will likely try to respond to children in a sensitive way. So, caregivers’ commitment links these factors together. This factor may be important for infant/toddler caregivers because the amount of actual caregiving when working with very young children is quite high. Infants and toddlers require a lot of personal attention. They need help with basic tasks such as eating, dressing, and changing their diapers. And while they may love to help with tasks such as cleaning and preparing food their contribution may add to, rather than subtract from, the caregivers’ total work. So, in fact, even though the child/adult ratio is lower in infant/toddler centres the actual amount of work may be greater.

4.2c) Caregivers of Three to Six Year Olds

There were three significant factors associated with higher levels of caregiver sensitivity when only the scores of the caregivers of preschool aged children were considered. All three factors were also significant when the scores of all caregivers were considered. Caregivers of preschool aged children received higher scores when they do not expect to be working in the field in three years, when they have more education in any subject area, and when they have more ECE specific education. And like the whole group, in this subgroup the education scores suggested that generally more education was associated with higher
sensitivity scores but for the caregivers who had either a three-year diploma or a post-diploma certificate, sensitivity scores were more likely to be in the low sensitivity group.

4.2d) Differences between the Caregivers of Infants and Toddlers and the Caregivers of Children Aged Three to Six Years

Similar to the findings when considering the features of the centre some caregiver characteristics were associated with high levels of caregiver sensitivity for the infant/toddler caregivers but not the caregivers of the older children, while other variables were associated with high levels of caregiver sensitivity for the caregivers of the preschool aged children but not the infant/toddler caregivers. The characteristics, which were associated with higher levels of caregiver sensitivity for the infant/toddler caregivers, related to caregiver attitudes toward their work, and to feelings of being supported and valued by the larger community. For the caregivers of the preschool aged group the factors, associated with higher levels of caregiver sensitivity, described personal characteristics (see Table 14). For the infant/toddler caregivers, attitudes and feelings seem to be important to caregiver sensitivity. Perhaps the nature of the work of caring for very young children means that these caregivers are more vulnerable than others to factors that affect commitment and motivation. Whereas, for the caregivers of the older children factors that affect skills and beliefs such as amount of education seem to be more important to sensitivity.
Table 14

A Comparison of CIS Results: Caregivers of Children Aged Three to Six Years and Caregivers of Infants and Toddlers Considering Caregiver Characteristics

<table>
<thead>
<tr>
<th>Infant/toddler caregivers</th>
<th>Caregivers of preschool aged children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caregivers received higher scores when they</td>
<td>Caregivers received higher scores when they</td>
</tr>
<tr>
<td>➢ Felt more positive about pay and opportunities for promotion</td>
<td>➢ Do not expect to be working in the field in three years</td>
</tr>
<tr>
<td>➢ Felt their work was stimulating</td>
<td>➢ Have more education in any subject area (some exceptions).</td>
</tr>
<tr>
<td>➢ Felt there was too little time to do all that needs to be done</td>
<td>➢ Have more ECE specific education (some exceptions).</td>
</tr>
<tr>
<td>➢ Felt respected as a professional by the families in the centre.</td>
<td></td>
</tr>
</tbody>
</table>
4.3) Limitations of the Study

The measurement tool, the Caregiver Interaction Scale, limits the findings of the study because it measures sensitivity, responsiveness, and harshness, but not the more complex behaviour of expressing empathy. Leavitt (1995) argued that a lack of empathetic responsiveness results when caregivers are unable to cope with the emotional labour of caregiving. The assumption that the presence of conditions that strengthen caregivers’ ability to cope with the emotional labour of caregiving should increase caregivers’ empathetic responsiveness underlies this study. But observers, using the CIS, rate caregiver behaviours that generally describe sensitivity, responsiveness and harshness but do not focus on the more complex behaviour of empathetic responsiveness. For example, the first question on the scale asks raters to score the caregiver on a four point scale from not at all to very much on “speaks warmly to the children” (Arnett, 1989). Speaking warmly to children is certainly an example of sensitive caregiving but it is possible to speak warmly but not empathetically. So while the CIS rates caregiver sensitivity and responsiveness, only assumptions can be made about empathetic responsiveness based on this tool.

The selection method also may have impacted the results since the director, who was informed about the purpose of the research, selected the staff member to be observed. And the observed staff members also chose whether or not to participate in the study. It is possible that less sensitive caregivers would be less likely to agree to an observation of their sensitivity. Caregivers who did agree to participate were informed about the observation tool and would be aware that their behaviours were being assessed, and thus, would likely be monitoring their own responses. So, the sensitivity scores were possibly skewed toward higher rather than lower sensitivity scores, affecting the variability of the results, since caregivers who are less sensitive may have been either self-selected or director-selected out of the study.
The qualitative methodology may have prevented the discovery of important characteristics as only variables selected before the observations occurred were measured, although the questionnaires asked some open-ended questions. A qualitative methodology could allow for a richer description of behaviours as well as the discovery of caregiver explanations of how and why they respond to children in a sensitive manner.

Finally, in this study the reasons suggested for the impact, of the significant indicators of sensitivity, on caregiver sensitivity, are primarily speculative since the study was exploratory. More research is required to establish how the significant indicators of sensitivity actually affect caregivers' responses to children.
Chapter 5

Conclusion

5.1) Implications

The findings support the argument that higher levels of caregiver sensitivity to children are associated with indicators of quality that enhance the emotional availability of caregivers. These indicators of quality may enhance emotional availability by creating an environment that values children and supports their caregivers. Supportive environments can be generated in the microsystem of the day care, through the mesosystem of relationships with the family, in the exosystem of the community and by the macrosystem of government support and regulations. Indicators of quality are structural, contextual and attitudinal in nature. They affect caregivers’ emotional states, their skills and their attitudes and beliefs.

Emotional states are difficult to measure and have been referred to in a speculative way throughout this report. Indicators of quality can be quantified and therefore, measured. Some indicators of quality that may have affected caregiver sensitivity, through an assumed effect on the emotional well being of the caregiver, were issues that impacted:

• the finances of the caregiver,
• the intellectual stimulation of the caregiver,
• the job security of the caregiver,
• the commitment from the centre to the caregiver,
• attention to the emotional labour of caregiving,
• reasonable demands on the caregiver,
• time away from the labour, and
• when caregivers have fewer outside demands on their emotional resources.

Some indicators of quality that predicted caregiver sensitivity may have impacted sensitivity by influencing caregiver attitudes and beliefs. The affected attitudes and beliefs
may have been satisfaction with the program, engagement with the work, the importance of relationships, remaining connected to the children, feeling enthusiastic and committed, avoiding frustration, and valuing their work. For example, when caregivers of children aged three to six years of age, reported feeling valued by the public at large they were more likely to be rated as sensitive. This feeling may impact sensitivity by affecting the caregivers' own valuing of their work. So, factors that affect caregiver beliefs likely influence the sensitivity of caregiver responses to children.

Other significant variables associated with caregiver sensitivity may have influenced sensitivity through strengthening caregiver skills. For example, opportunities for professional development predicted caregiver sensitivity. Some indicators of quality that were associated with caregiver sensitivity may have done so by providing opportunities for self-reflection and the self-reflective practices which may have increased caregivers' skills in responding in sensitive ways.

Factors, which affected workload, also seemed to be associated with caregiver sensitivity where when the workload was too much caregivers were less sensitive. For example, having fewer children enrolled predicted more sensitive infant/toddler caregivers. Fewer children means caregivers can focus intently and so possibly more sensitively. But if caregivers try to maintain that intensity when they have many children the demand to be sensitive may simply overwhelm their ability to do so. Then, workload may have impacted sensitivity by exceeding the skills of the caregiver to respond in a sensitive way.

The findings of this study suggest that communities could affect the lives of their children by providing support to childcare centres in ways that strengthen caregivers' emotional well being and their skills, influence their attitudes and maintain a realistic workload. Caregivers, parents, administrators of programs, institutions that educate caregivers, and governments all have a role to play in fostering the development of environments that provide that level of support to childcare centres.
Governments should take a strong role by providing direct financial support to centres as many of the variables associated with the sensitive caregiving were related to the financial resources of centres especially factors that provided direct funds for caregivers’ wages. Governments could impact caregiver sensitivity by providing support for caregiver education thereby strengthening skills. Finally, governments legislate the number of children caregivers can care for and thus affect the workload of caregivers.

Institutions that provide caregiver education can consider the years of training delivered to students since more ECE specific education seems to be associated with higher levels of caregiver sensitivity. Educators of caregivers could also direct specific attention to the skills and attitudes that enhance caregivers’ potential for responding to children in a sensitive way. Administrators could support caregiver sensitivity by ensuring adequate wages and benefits are directed toward caregivers. In addition, those who are responsible for administering centres can address organizational issues that impact caregiver sensitivity. They could provide in-service training and provide an environment that indicates to caregivers that their work is valued. Parents and other members of communities could enhance caregiver sensitivity by directly acknowledging that they value the caregiver’s work since parents’ satisfaction with the centre is associated with higher levels of sensitivity. Caregivers can directly affect their own sensitivity by valuing the emotional labour component of their work. They could also take opportunities to upgrade their skills and seek out ways to create environments that allow them to provide sensitive care.

In conclusion, this study identified many factors associated with caregiver sensitivity. It seems possible that particular factors affect caregiver sensitivity by providing support in some way to the caregiver. Since this study was exploratory much more research is necessary to strengthen this claim. However, it is reasonable to suggest that factors that are associated with high levels of caregiver sensitivity are critical to our understanding and provision of high quality childcare.
References


Appendix

Variables From The You Bet I Care! Questionnaires
Examined In This Study

A Centre Questionaire Variables

1. Children At The Centre:
   - observed ratio
   - age groups
   - number of vacancies
   - vacancies by age group
   - number of children in centre for one year or more by age group
   - number of children who speak neither English or French @ home
   - number of children with special needs enrolled in the centre

2. Financial Organization:
   - monthly fee by age
   - % of centre revenue comes from....
   - type of in-kind donations
   - % of budget spent on.......

3. Centre Organization:
   - nature of contract
   - regular use of volunteers
   - practicum students
   - background of teaching staff re: visible minorities
   - number of teachers who have 2 year post secondary ECCE education
   - auspice of centre

4. Staff Working Conditions:
   - highest gross hourly full-time wage in each position
   - lowest gross hourly full-time wage in each position
   - how many staff left centre in the last 12 months
   - main reasons for leaving centre
   - do staff have paid prep time
   - paid after-hours meeting time
   - release time for training/workshops
   - financial assistance to cover workshops etc.
   - yearly wage increase
   - number of paid sick days per year
   - number of paid vacation days per year
• dental coverage
• pension plan

B Staff Questionnaire Variables

1. Children In The Centre:
   • time spent with specific group
   • age group of children
   • supervise practicum students
   • % of time spent on non childcare work
   • paid hours scheduled per week
   • unpaid hours worked per week
   • freq. of scheduled meetings
   • current role in centre
   • years worked at centre
   • years worked in childcare

2. Wages, Benefits & Working Conditions:
   • wages
   • how are wages determined
   • working conditions
   • representation by a union

3. Other Paid Work:
   • other paid work,
   • hours per week other paid work

4. Feelings About Child Care Field:
   • positive aspects
   • negative aspects
   • opportunity for promotion
   • respected as a child care professional
   • expect to be in the field in 3 years

5. Feelings About Own Centre:
   • relationship with co-workers
   • relationship with supervisor
   • feelings about work environment
   • feelings about pay, benefits and
   • feelings about work situation
   • how are decisions made
   • influence into decisions and actions
   • how secure is job
• still working at centre in 1 year

6. Educational Background/ Professional Development & Personal Background:
• education
• E.C.C.E. specific education
• participated in professional development in the past 12 mos.
• age
• how many children in own home
• % of household cost covered by salary