A COMPARISON BETWEEN TWO TYPES OF INFANT DAY CARE IN WINNIPEG AND TORONTO

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ABSTRACT

The effect of the type of infant day care and the stringency of legislation regarding infant day care was studied in supervised family day care and centre group care in Toronto, Ontario and Winnipeg, Manitoba. The ABC Checklist (Honig and Lally, 1973) was used to measure infant-caregiver interaction (N=73) and an Environmental Checklist was developed to evaluate the physical set-up of the care arrangements (N=45). Questionnaires were received from 47 caregivers and 65 care receivers indicating satisfaction with and preference for their infant day care arrangements.

The eight clusters of behaviors in the ABC Checklist were analyzed and showed significant ($p < .05$) differences within stringency of legislation and type of care arrangement in 12 of 24 *t*-tests. Analyzing the 40 individual categories of the ABC Checklist 34 of the 160 *t*-tests showed significant ($p < .01$) differences in caregiver infant behavior within stringency of legislation and type of care arrangement. In both above sets of analyses the direction of the differences was inconsistent.

The chi-square statistic was used to analyze differences between the four experimental groups in the 11 categories of the Environmental Checklist. Twelve of the 44 chi-square tests showed significant ($p < .05$) differences between stringency of legislation and type of care arrangement but the direction of the differences was inconsistent. The apparently ambivalent reactions of the care-givers and care receivers regarding satisfaction with and preference for the infant care arrangement made statistical analysis inappropriate. The study did not provide support for the proposition that where more stringent legislation is present a higher quality of care is likely to be available.

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CHAPTER I

INTRODUCTION

Infant day care in various forms has existed in Canada as long as people have been here, but perhaps feelings towards it have never before been as ambivalent as they are today. Two opposing points of view have been expressed. One faction believes infants should be cared for by their parents in their own homes and that this is the best care. The other faction believes that infants can receive adequate care, and in some circumstances superior care, when they are cared for by someone other than their own parents. This latter faction also believes that infants can be well cared for outside their own homes. There are naturally many people whose beliefs place them between these two viewpoints. The availability or choice of infant day care arrangements influences the viewpoint held by people. Some people support family day care as opposed to centre group care for children under the age of two years, or feel that out-of-home care should only be available for single working parents. The number of women who choose to remain in the work force and still have a family is continuing to increase. The Department of Labour published a survey of working mothers in 1970 (based on 1967 statistics) that indicated that there were 540,000 working mothers in Canada, and 26% had children under three. One of the major findings of the national day care survey of 1973 was that less than 2% of the estimated 239,000 children, who were under three years of age, were cared for in supervised day care, either centre or family. According to Philip Hepworth's (1974) report on a survey of day care needs in Canada,

355,000 places for full-time day care could be used in 1975 for children aged zero to three years.

Legislation regarding care of infants outside their home existed in all provinces in Canada but the legislation ranged from highly structured guidelines to very minimal requirements.

With so many groups pressuring provincial governments for legislation to provide better infant day care, it seems important to determine whether or not legislation affects the quality of care of infants outside their own homes. Because of the conflicting views regarding the effect of the type of infant day care (centre group or family) it also seems important to determine if the types of infant day care affect the quality of care.

Statement of Problem

Specifically, the present study was designed to determine if there were differences in infant/caregiver interaction and environmental facilities between day care arrangements in Winnipeg, where minimal legislation is present and Toronto, where legislation provides clearcut guidelines for infant day care. Both supervised family day care and centre group care for infants were present in Winnipeg and Toronto. It was important to determine whether or not differences in quality of care existed due to the form of day care and/or to the geographic location (type of existing legislation). At the same time, the investigator examined the form of day care preferred by caregivers (workers) and care receivers (parents), as well as whether or not the

caregivers and care receivers were satisfied with the form of day care with which they were currently involved.

Hypotheses

The following null hypotheses were developed to guide the direction of the present study.

1. The quality of arrangements as measured by an Environmental Checklist[1] will be the same for:
   (a) infant family day care arrangements and infant centre group care arrangements under stringent legislation
   (b) infant family day care arrangements and infant centre group care arrangements under minimal legislation
   (c) infant family day care arrangements under minimal and under stringent legislation
   (d) infant centre group care under minimal and stringent legislation
2. The quality of arrangement as measured by the ABC Checklist (Honig and Lally, 1973) will be the same for:
   (a) infant family day care arrangements and infant centre group care arrangements under minimal legislation
   (b) infant family day care arrangements and infant centre group care arrangements under stringent legislation
   (c) infant family day care arrangements under minimal and under stringent legislation

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[1]The environmental checklist was constructed by the investigator.

(d) infant centre group care under minimal and under stringent legislation

3. Satisfaction with infant day care arrangements as measured by responses on a questionnaire will be the same for:
   (a) infant family day care receivers and infant centre group care receivers under minimal legislation
   (b) infant family day care receivers and infant centre group care receivers under stringent legislation
   (c) infant family day care receivers under minimal and stringent legislation
   (d) infant centre group care receivers under minimal and under stringent legislation
4. The type of infant care arrangement preferred will be the same for:
   (a) infant care receivers under minimal or under stringent legislation
   (b) infant caregivers whether minimal or stringent legislation

Definitions

The present study employed the following operational definitions:

Family Day Care

There are two types of family day care: supervised and unsupervised. Supervised family day care refers to arrangements where the infant is cared for in a home, other than his own for a regular part of the day. These homes receive visits and guidance in child care from a social agency.

Unsupervised family day care refers to arrangements where the infant is cared for in a home, other than his own, for a regular part of the day. These homes receive no guidance or visits from social agencies.

Centre Group Care

This term refers to arrangements where the infant is cared for in a building other than a private home and where there are at least four other infants receiving care.

Care Receivers

This term refers to the parents of the infants who are cared for in a day care arrangement.

Caregivers

This term refers to the people who take care of the infants in a day care arrangement.

Gatekeeper Approach

This approach employs the method of contacting community agencies to assist in data gathering.

Infants

This term refers to human beings from birth to eighteen months of age.

Quality

This term when used in research hypotheses, refers to the attributes of the infant care arrangement as measured by the Environmental Checklist, and caregiver/infant interaction as measured by the ABC Checklist (Honig and Lally, 1973).

Continuity of Arrangement

This term refers to the infant receiving care by the same caregiver in the same location every day that he/she is not in the care of his/her relatives, thus he/she does not have to adjust to new caregivers.

CHAPTER II

REVIEW OF THE LITERATURE

Research specific to infant day care is relatively new and therefore scarce, especially in Canada. A study of the issues and concerns of infant day care shows a relatively larger and more extensive history in foreign countries. This chapter will first review the history of day care in Canada and other countries; then the research concerning the effects of day care and other early experiences on the infant.

Centre Group Care

In Canada[2]

The history of infant day care in Canada begins in Quebec and Ontario. In 1888 infant creches or centre group care arrangements were operating in Montreal for the infants of sole support parents, that is, one-parent families where that parent works outside his/her own home to support the family. Babies were under the supervision of a trained nurse and apparently provided with all the necessary health and physical care for an eight to ten hour day. Little was provided in a way of opportunities for physical activity, stimulating play, or emotional response to adults. At that time, due to the absence of research about child development, these custodial programmes were acceptable. Infant centre group care in Toronto from 1890-1927 was

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[2]Prepared from printed materials by the Social Planning Council of Metropolitan Toronto (1966-1972); Day Care: A Report of a National Study (1972); the Manitoba Department of Labour; Women's Bureau (1974) and from personal interviews with agency representatives contacted for the study.

privately operated by citizen volunteer boards or under religious sponsorship with funds from philanthropic sources. Since the child welfare philosophy at that time supported the view that infants should remain in their own homes if at all possible, the Province of Ontario in 1927 provided mother's allowances to several catagories of sole-support mothers.

By 1949 the provinces of British Columbia, Alberta, Saskatchewan, Manitoba, Quebec, New Brunswick, Nova Scotia and Newfoundland had passed similar legislation. Mother's allowances are still available today in every province in Canada. During the 1930's infant care in day care centres had practically ceased, although isolated instances of infants in group care were still found in 1960. Except for Ontario, there were no organized agencies or centres operating for infants, however, this is not surprising as the population that could benefit from or needed this type of care was scattered across the country in small numbers. The people who used out-of-home infant care could often appeal to a member in their extended family or to a neighbour who was at home, perhaps caring for her own children.

During World War II the Canadian government made funds available to all the provinces for the establishment of day nurseries in areas where large numbers of women were employed in war industry. This service, however, was focused upon children between two and five years of age. Child development experts of the time believed that institutional and group care were the same thing and thus detrimental to an infant's overall development (Ribble, 1943). Child development experts had also

learned that children appear to be ready for a group experience at about age three, thus the acceptance of group care for the over three year old. At the conclusion of the war the Federal Government withdrew financial support and, except for Ontario, government funded day nurseries ceased to operate in Canada. Public demand caused the Ontario government to pass the Day Nurseries Act in 1946 which established standards for the operation of day nurseries and nursery schools. These regulations were revolutionary in North America but only applied to children between three and five years of age. Some provinces, however, had some regulations under the direction of health, fire, and welfare legislation which could have applied to infant day care arrangements had there been any.

During 1960 interest in infant day care centres was renewed partly by the women's liberation movement and partly because mothers of infants chose to remain in or return to the labour force (Larson, 1969). The original 1946 Day Nurseries Act of Ontario was revised and up-dated in 1961 with no mention of under-three care.

It was in 1966 that the Canadian Federal Government again presented plans to share in the cost of day care services across the nation. In 1967 the Canadian Mothercraft Society in Toronto started an infant day care programme for twenty children under two years which provided practical experience for the Mothercraft nurses-in-training. In 1968 there were at least three infant day care programmes operating in Toronto; one was a private commercial service and two were non-profit centres serving a total of fifty infants. A further revision of the

Ontario Day Nurseries Act[3] in 1967 included provision for children under two years of age.

Interest in infant centre group care began to surface at this time in Winnipeg, Manitoba. The legislation that governed this care was not exclusive to the care of infants.[4] Not until 1970, however, did this type of care really begin to grow. By 1974 centre group care for infants was operating in British Columbia, Alberta, Manitoba, Ontario, and Quebec. In Toronto over thirty infant centre group care arrangements were operating and three centre group care arrangements existed in Winnipeg. At present, 1978, infant centre group care growth has been at a standstill, although a sizeable segment of the public continues to demand this type of service.

Foreign Countries

The day care of infants in centres has a long operational history in countries such as France, Britain, Denmark, Sweden, Russia, Israel, Yugoslavia, Poland and Czechoslavakia (Evans and Saia, 1972; Meers, 1970; Wagner and Wagner, 1970; Gerwitz, 1968). The governments of these countries appear to have structured and developed their individual care programmes according to the countries' needs and philosophies. Both positive and negative reports have been made of these infant day care centres. The conflicting results highlight the varying philosophies of those commenting on infant day care.

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[3]Statute of Ontario, The Day Nurseries Act, Ministry of Community and Social Services.

[4]City of Winnipeg, Welfare Institution By-Law No. 260/72.

In France infant group day care has existed for over a hundred years. In Paris in 1844 a creche was operating to care for infants of working mothers. Dr. F. Davidson of the Maternal and Child Health Services of the Department of the Seine reported that 53.8% or 4,031 of the children in day care centres in Paris were under 18 months of age (1964). Evans and Saia (1972) in their description of infant day care centres in France, particularly in Paris, stressed the highly structured and regimented environment which had excessive emphasis on physical care and hygiene. According to a 1968 report prepared by the Social Planning Council of Metropolitan Toronto, Paris day care centres may be typical of the best in European day care for children: the creches were open for a 12 hour day and generally accommodated from 40 to 60 babies. The staff ratio was usually one adult to six to ten infants. Even in the best of creches, there seemed relatively little attempt to provide infants with stimulation either by use of toys or visually attractive objects such as mobiles (Morans and Meers, 1968). This might be due to the major emphasis being the physical care of the infants. Meers (1970) commented that research on France's infant day care was notable only for its absence.

In Britain, infant group care has been available since 1866 for children whose mothers were obliged to work or who were unable to provide adequate care for their children. The attitude toward out-of-home non-mother care, however, has not been positive, mostly negative or non-committal. Mothers were encouraged not to work until their children were at least two years of age. Great Britain, particularly England and Scotland, has had comprehensive training programmes in

infant care since 1945. This programme, called the National Nursery Examination Board, continues to be thought of as good quality training even today.

Denmark's infant day care centres have been in operation for over eighty years. According to Evans and Saia (1972) the quality of child care was excellent with adequately trained staff and a ratio of 4 infants to 1 adult. The demand for this service was greater than the number of spaces available and thus there was an admission selection procedure with preference given to single parents.

The centres were usually in the same neighbourhood where the children lived, as the Danes' experience with industrial day care (centres near or in the parent's place of work) had not proven successful. When children were moved from one care room to another as they grew, an attempt was made to have the children move in groups together so they could establish permanent peer relationships. Wagner and Wagner (1970) stated that in Denmark every attempt was made to fit the programme to the child and his family.

Sweden has been operating infant day care centres similar to Denmark's since 1834. Evans and Saia (1972) wrote that Sweden's day care system was by far the most comprehensive and best in quality. Staff education and training, low ratios, as well as appropriate equipment, all contributed to making a superior environment for the infants who ranged in age from 6 months to 2 years of age. Denmark and Sweden both encouraged individual development to the limit of a child's ability.

Infant day care has perhaps had its greatest impact in the communist block nations. The U.S.S.R. has been involved in group care since the Russian Revolution. As the state believed that all adults must work, parents had to be freed of infant care responsibilities during work hours. The political doctrine contributed to a highly structured compulsory schedule in the centres prior to the late 1960's when a modification, but not a total disintegration of this attitude took place. An explanation was not available to explain the shift in attitude, however, since 1971 mothers have been encouraged to care for their infants at home for the first year of life (Jacoby, 1971). According to Meers (1970), U.S.S.R. day care did not appear to be revolutionary. The apparent aim was to provide a better start and not to accelerate introduction to intellectual academic matters. Meers (1970) made reference to some negative rumours such as occurences of hospitalism in some poorly organized nurseries.

Another of the communist block countries, Czechoslovakia, has also modified its views concerning infant day care for children under three years of age. As a response to some research evidence of emotional injury to the very young children who were in day care centres, Czechoslovakia has systematically reduced its day care space for this aged child. In 1970 only 12% of day care space was filled by children under three years of age. As of 1970 the government provided a maternity leave or absence of one year as well as reemployment guarantee lasting for eighteen months.

The day care programmes in Poland did not usually have infants younger than 4 months of age. Gornicki (1964), the director of the

National Research Mother and Child Institute in Warsaw, compared the physical, psychological, speech and social development of 400 children ranging in age from 9 to 36 months who were cared for in infant centres with 500 children in the same age ranges who were cared for in their own homes by their mothers. Conclusions reached were that the home reared infants were superior especially in oculomotor coordination and speech. The day care reared children, however, were not any more markedly retarded in psychomotor development or suffering from social or emotional behavior disorders than the home reared infants. The investigator stressed the possible influence of a shortage of adequately trained staff, and the suitability of the premises and equipment, as well as the social upheaval due to the war.

The infant care programme in Yugoslavia was described by Evans and Saia (1972) as being authoritarian and organized in large collective units. They questioned the quality of care because of large class sizes (25), and high ratio of infants to adults (25:2), as well as a state-dictated curriculum. Yugoslavia's centres seemed to be a mixture of the French and Russian systems.

The Government of Hungary developed infant care programmes initially to provide for homeless children who were victims of circumstance due to the second world war. The Soviet Russian model of infant care was adopted, but the Hungarians differed in their attitude towards infant care. Although the parents of young children realized that they needed to work to assist the state in redevelopment, care of children under the age of three was viewed only as a stop gap measure. That is, infant day care should be progressively limited and eventually terminated

as economic conditions allowed mothers to remain in the home. By 1965 the conditions of infant day care had improved tremendously. The attitude towards it, however, had remained the same. By 1967 the Hungarian government encouraged mothers of children to remain at home until the child was three years of age by providing paid maternity leave and reemployment guarantees.

The Israeli Kibbutz system of infant care was also developed due to the necessity for parents to work if the country were to develop. The general attitude from the beginning, however, was one of trust and respect for the infant care programme (Gewirtz, 1970). The kibbutz system was based upon early admittance to a central care house for infants as young as one week with the mother visiting at various times during the day. Evans and Saia (1972) expressed the belief that the success of the kibbutz system, which had been operating in Israel for over 25 years, proved that children can be reared in groups and cared for by other than their own parents. In general, research (Bettlehiem, 1969; Rabien, 1965) has indicated that kibbutz-reared children did not differ from non-kibbutz-reared children in any significant way.

Supervised Family Day Care

In Foreign Countries

Infant day care in Europe appeared to be centred around group care programmes or unsupervised family day care. The investigator found only two references to supervised family day care in the literature. Unsupervised family day care however, did exist especially in areas where centre group care was minimal. One factor, the presence of the

extended family in European society, might account for the absence of family day care programmes. A family member, for example a grandmother, could care for the family's preschool aged children and thus the need for nonfamily care or out-of-home care was reduced.

Supervised family day care in Denmark was begun primarily to meet the needs of "high risk" infants. These infants described by Wagner and Wagner (1970) were frequently the babies of unwed mothers, infants from broken homes or from homes with some known pathology. These children were given priority for spaces in the day care homes. There was, however, a scarcity of day care homes. Potential day-care mothers were interviewed and observed with children. If accepted, they were employed on a trial basis and observed frequently for the first few months. Their homes or rooms were inspected for cleanliness, adequate plumbing, kitchen facilities, and space. There were no education requirements, but preference was given to mothers who had had experience in rearing children. There was an ongoing in-service programme for both the day-care mothers and the parents.

Czechoslovakia attempted to develop a supervised family day care programme several years ago. It was soon abandoned due to three main reasons (Wagner & Wagner 1970). They were: (a) no solution for placement of child when day-care mother was ill; (b) difficulty in finding good day-care mothers; and (c) insufficient government control over the daily activities of the child.

In Canada

As early as 1880 the use of foster homes for the majority of children in the care of Canadian Welfare agencies involved the agencies

in foster home programmes. These foster home programmes were present all across Canada, and agencies, usually Children's Aid Societies, were involved with interpreting foster home care and enlisting suitable persons to become foster parents. The difference between foster homes and family day care homes is cloudy and varies from province to province. The three main differences appear to be: (a) the parent still accepts responsibility for the child in family day care; (b) the child spends part of a day in the care of the parent in family day care; and (c) family day care acts as a supplement to parent care and foster care acts as a substitute to parent care. It is not surprising that foster care developed into family day care in some instances. It is interesting to note that a separate recognized programme for supervised family day care was not established in Canada prior to 1964.

Family day care was also developing along a parallel line but separately from the Children's Aid Societies. Several provinces had legislation such as the Maternity Boarding Houses Regulations (Manitoba, 1954), and the Welfare Homes Act (Alberta, 1963) which attempted to provide some control over homes caring for children up to 3 years of age for pay. Such homes were supposed to be registered with local health departments who then had the right to inspect them. Individual cities such as Vancouver also had special by-laws which controlled out-of-home care. Also, one day nursery in Toronto planned a family day care program in the 1930's, however, financial limitations stopped it before it began.

In Toronto in 1964 three agencies separately began pilot projects in family day care. The Social Planning Council coordinated the three

studies made by Victoria Day Nursery, Protestant Children's Homes and St. Christopher House over a two-year trial period. Each of these agencies provided a family day care service which was described by the Child Welfare League of America (1966) as a type of day care suitable to meet the needs of children who are chronologically or developmentally under three years of age. All three agencies passed resolutions and presented reports in May, 1966 which stated that supervised family day care was needed to supplement the already existing day nurseries for 3 to 5 year olds in the Toronto area. All three agencies also supported a move to get recognition of supervised family day care under the Day Nurseries Act and thus become eligible for financial benefits. This was accomplished in 1971, but the family day care services continued operating under self-imposed standards during the interval with funds made available from voluntary community resources as well as from the Metropolitan Toronto Department of Welfare. In other provinces privately funded agencies became involved in supervised family day care programmes. The system used for supervision, however, varied between provinces and even within cities. In Manitoba in 1965 the Family Bureau of Greater Winnipeg became involved in this type of programme with sole support parents of preschool-aged children being the major type of client. Children over two, however, made up the greatest percentage of this sample. During 1974 the Manitoba Provincial Government made policy decisions which involved taking over the supervised family day care service from the Family Bureau of Greater Winnipeg. The purpose of this move was to expand and provide more comprehensive family day care service. This expansion, however, did not materialize

until late 1975 and even then largely serviced children over two years of age. A further stumbling block was imposed by the City of Winnipeg Council who froze the number of family day care homes within the unicity limits by passing more stringent legislation in order to be licensed. In 1978 both the Family Bureau of Greater Winnipeg and the Provincial Government of Manitoba operate supervised family day care programmes. The majority of the clients of these programmes continue to be over two years of age.

The success of the supervised family day care programmes in providing a necessary valuable service is obvious. In Toronto alone in 1974 six agencies offered supervised programmes. However, the meaning of the term supervised varied between agencies. Table 1 illustrates specific information concerning what "supervision" meant to each of the six Toronto agencies. The very minimum to be said about the supervised family day care programmes is that this alternative appears to be a workable form of infant day care.

Unsupervised Family Day Care in Canada

Unsupervised family day care is comparable to the proverbial iceberg. One sees only the top, however, the majority of the substance is hidden from view. When reading the classified section of any newspaper, one can find a list of people offering day care in their home, and no doubt there are many homes offering day care about which nothing is known. Unsupervised family day care has always been offered, and continues to be offered and used by the vast majority of Canadians today. The Canadian Day Care Survey indicated the need for supervised day care

TABLE 1

Supervised Family Day Care in Toronto

AGENCY	Starting Date	Caregiver Recruitment	Description of Training	Meanings of Supervision	Comments
Canadian Mothercraft Society	1967	referred by Manpower	16-week course: lecture, practical	no follow up referred to a supervising agency	Keeps a directory of graduates
Cradleship Creche	1969	elementary schools	interview home inspection visit to group programme	field worker visits home once a week first month then once a month	Provides toys on loan. Has had successful meetings with caregivers and receivers-held every 6 weeks.
Dovercourt International	1973	word of mouth	interview home visit	spot check every 2 weeks, once a month meetings	A large Greek influence. Also aligned with infant group care.
Family Services	1968	word of mouth	interview home visit	monthly day care meetings	Presently involved in research project
Seneca College	1973	newspaper advertisement	interview home visit	student placements frequent visits	Part of Early Childhood Education Department
Victoria Day Care Services	1968	word of mouth neighbourhood newspaper contacts with community groups	interview and match with receiver in-service meetings after involvement	monthly visits act as liasons in meetings of givers and receivers	Developing toy kits

programmes due to the many reported abusive situations in private unsupervised homes (Canadian Council on Social Development, 1972).

Unsupervised family day care legally comes under the same requirements as supervised family day care. That is, people who are caring for more than three children other than their own who are under ten years of age and not of common parentage are supposed to be registered with their local health department. In actual fact, however, these homes and caregivers are not registered or inspected by a government department. According to the Department of Health and Welfare of Canada, 1973, the parents of the infants and the caregivers form casual arrangements which in many instances appear to be inexpensive to the parents but disastrous for the infants. Even though Canadian Research concerning this form of day care is practically nonexistent Canadian day care experts appear to believe that it is in the unsupervised family day care arrangements that the vast majority of infants in out-of-home care are placed. In a 1959 survey of day care needs carried out by the Welfare, Health and Recreation Services in Metropolitan Toronto (mimeograph material) the following quote illustrates the previously mentioned concern:

> Many working mothers are making private arrangements for family day care in unsupervised homes which sometimes do not meet even minimum health standards. (p. 4)

In 1975, the Social Planning Council of Metropolitan Toronto undertook a research project in order to gather information about unsupervised family day care in the Toronto area. This report Child Care Patterns in Metro Toronto (June, 1977) is a valuable resource to

enable the Canadian public to see below the tip of the iceberg of unsupervised family day care.

Infant Day Care in the United States

Infant Care in the United States will be discussed separately for two reasons: 1) more of the research as well as the information pertaining to operation of programmes was available, and 2) the United States and Canada have many characteristics in common, thus, perhaps results will have added importance in relation to the Canadian scene.

In the United States infant day care has been present in three forms: centre group care, supervised family care, and unsupervised family care. Centre group care appears to have begun in 1854 in collaboration with the Child's Hospital of New York City. The infants were as young as 15 weeks of age and were cared for by experienced nursemaids. This care appeared to have been mainly custodial with the emphasis on physical health and cleanliness. In 1898 the National Federation of Day Nurseries was founded. This group was particularly concerned about the poor quality of care in the day nurseries and brought pressure on the government to provide funds so mothers could remain at home and rear their children. The first Mothers' Pension Act was legislated in 1911 and by 1919 public assistance was available to mothers in 39 states (Fein and Clarke-Stewart, 1973). This negatively affected any organized out-of-home care programme operating for infants. Many mothers of infants, however, continued to work. How and where these infants were cared for are disturbing questions.

Between 1885 and 1920 legislation was passed governing anyone offering care to more than two children under the age of three but this

was seldom investigated and municipal officials generally ignored the law. The attitude continued that mothers should remain in the home and care for their own infants thus deterring any further growth in this area except for foster home care. Research results which supported the viewpoint that children who were cared for in institutions often suffered irreparable emotional, cognitive and social damage became available. In several states legislation was passed prohibiting group care of infants. Child welfare agencies made every effort to keep a child in his own home and if necessary find a day care home to assist the family which was in need. Family day care programmes supervised by social agencies began to operate in the 1920's and 1930's. During World War II women were called into the work force and day care for infants on a large scale was needed. Different factors operating in the United States, such as women's liberation and the greater numbers of women choosing to remain in the work force contributed to increased pressure for the provision of infant care. One other contributing factor was the development of the nuclear, often transient, family and thus the absence of members of the extended family to care for young children during the time when the mother worked. According to a study done by Waldman (1970) in the United States there were over two million working women who had children under the age of three. Group infant care however, did not materialize in any quantity until the late 1960's and early 1970's. In describing the United States day care system Irving Lazar and Mae Rosenberg, (1970) stated:

> Day Care in America is a scattered phenomenon; largely private, cursorily supervised, growing and shrinking in response to

> national adult crises, largely unrelated to children's needs, and, unlike the situation in many other nations, totally unrelated to any national goals for children, or explicit goals of encouraging well defined character traits. (p. 77)

If Lazar and Rosenberg were correct considerably more research and legislative control are required if out-of-home infant day care is to become the kind to meet the needs of children and their parents.

Early Experience

The importance of early experience for normal growth and development is documented in both human and infrahuman research. Research on infant learning, (Ainsworth, Bell, and Stayton, 1972; Caldwell, Wright, Honig, and Tannenbaum, 1970) and early environmental effects (Stevenson and Fitzgerald, 1971) suggested that care and stimulation is needed if an infant is to achieve his/her developmental potential. Research studies involving maternal deprivation (Ribble, 1943; Spitz, 1946) and maternal separation (Bowlby, 1952; Freud, 1965) has pointed out the importance of the infancy period of life to future physical, intellectual, emotional, and social development.

June B. Pimm in her concluding remarks in a 1969 article on the effects of early childhood experience stated:

> It appears that psychological research still presents conflicting results in terms of the exact nature of the effects of early experience on children. However, in every area reviewed, (social development, intellectual development), there is a body of evidence which supports the notion that the introduction of added stimulation during the formative period of development can result in effects of a permanent nature. (p. 54)

Language programming, that is adults talking, reading, and singing to and with young children, makes up an important part of infant

stimulation. Barbara Mates (1974) discussed the importance of music and singing to young infants. Sounds, noises, words, and rhythms provide a beginning notion of communication and help familiarize children with language patterns. Goldberg and Lewis, (1969) associated the importance of language-stimulating activities for human infants with more frequent vocalizations. The language competence potential was related to early language stimulation activities in research such as that reported by Clarke-Stewart (1973). Wachs, Uzgiris, and Hunt (1971) found a positive relationship between vocal and verbal stimulation and cognitive development in the second year of life.

The need for nurturance of infants was emphasized by Provence (1967) to ensure positive development. Erickson (1963), in his theory of human development, cited the first or infant stage of development as focusing on basic trust versus mistrust. If the infant is unable to learn basic trust he/she may then be unable to progress towards the next stage of development. Research involving infant attachment, the affectional tie that the child forms with another individual, has been carried out by Bowlby (1969) and Ainsworth (1962). This attachment coupled with physical contact which is gentle, firm, close, and frequent appeared to have a beneficial effect on both early motor and intellectual development as well as on the capacity to handle stress (Dennis, 1960; Goldberg and Lewis, 1969; Provence and Lipton, 1962; Yarrow, 1964).

A number of research centres which have carried out infant programmes provided interesting results concerning infant development. The Children's Centre at Syracuse, New York during the period 1964 to

1969 found that a stimulation programme for 65 children ranging in age from 6 months to 4 years which emphasized verbalization, warmth and attention resulted in a continued rise in I.Q. scores of both middle and lower class children while the I.Q. scores of the matched home-care infants actually decreased. The middle income children showed more rapid I.Q. gains than did the lower income children. A possible explanation of these results might be that middle income children had the background experiences to take advantage of the enriching experiences, or their parents were more readily able to carry out similar activities at home.

In a study done with thirty infants over a three year period at the Canadian Mothercraft Society results showed that centre group infants made more substantial I.Q. gains than did the home care control infants. The time of entry into the programme, however, appeared important as the earlier a child entered the centre the more substantial was his/her I.Q. gain (Fowler, 1972).

Thus it is evident that language, social-emotional, physical, and cognitive experiences are important for normal early childhood development. These aspects are of particular importance to the very young child when cared for by people other than their mothers outside their own homes. These experiences are especially relevant in carrying out a quality infant programme.

Infant-Caregiver Interaction

One of the philosophies concerning caregiver interaction called for minimum interference in a child's activities. The adult's role was

to be that of an observer with a passive teaching style, watchful and retiring, while allowing the child to interact with various materials or toys. The feeling was that if an adult simply guarded the child against emotional damage, some kind of natural growth force would take over and assure the child's maximum development. R. Elardo (1975) cautioned against this philosophy and indicated that the role of the adult needs to be more active and directive if the infant is to realize his/her developmental potential.

The affective component in the educational process of infants and toddlers stressing such goals as, helping the child maintain self-esteem and self-acceptance; helping the child increase personal, cognitive, and emotional skills and capacities; and helping to increase the child's repertoire of interpersonal and social skills and capacities are important. In order to achieve these goals caregivers must be equipped with specialized knowledge and skills as well as have the necessary tools for proper health care and safety. Richard Elardo (1975) stated:

> The maintenance of high-quality interactions between adults and children is probably the most important factor in providing quality child care. (p. 9)

The question of how to achieve a high-quality of interaction must first begin with what would be appropriate personality characteristics of caregivers. Researchers and lay workers agreed that caregivers of infants should possess the "motherly" qualities of warmth, tenderness, and sensitivity. The most obvious candidates for infant caregiving positions would be people who are loving, giving, flexible, creative, and intelligent (Keister, 1970). The "ideal caregiver" should be someone who has a love for babies as well as cheerfulness, patience, and

a willingness to learn from others (Honig and Lally, 1974).

An additional positive criterion is one of experience, that is, a person who has raised children. The person who has had experience with infants and continues this contact by caregiving, obviously enjoys and loves children in spite of rigorous demands. They might also be less tense and more responsive and thus better able to take charge of a crisis situation. Research is available to substantiate that positive effects occur for the child when the above goals and guidelines, personal characteristics, and experience make up the adult component in infant-adult interaction (Yarrow, 1964; Clarke-Stewart, 1973, Caldwell, 1967).

A review of the literature shows a dramatic increase in the number of research articles on parent-child interaction. This interest indicated that parent-child interaction is considered important to the development of infants. According to Moss, Robson, and Pederson (1969) mother/infant interaction was a vis-a-vis experience and one of the earliest forms of communication between infant and mother. In this study 54 mothers and infants were observed during the infants first three months of life. Results indicated a positive relationship between mothers' ratings as sources of stimulation and infant social emotional development as measured by fear of stranger response at nine months. The importance of mothers' personality characteristics and the type of behaviors they adopted were related to responses and development in 30 one-year-old infants according to Stern, Caldwell, Hershen, Lipton, and Richmond (1969). Four factors were reported: accelerated infant development was associated with appropriate affective mother

behavior (warm, loving) as well as mutual maintenance of distance; maternal display behavior was associated with heightened infant sensuality. Lewis and Wilson (1972) in a study with 32 twelve-week-old infants related maternal behaviors such as touching, holding, smiling, looking, and playing, with infant vocalization and smiling more and fret/cry less. Several measurement tools have been developed to observe and record parent-infant interaction (Shaefer and Aaronson, 1966; Gordon, 1970; Olmsted and Jester, 1972; Bronson, 1974). It is interesting to note that the majority of the tools incorporated clusters of personality characteristics and behaviors such as language stimulation, social stimulation, physical stimulation and care, discipline, and cognitive stimulation. This would indicate that these areas are of major importance in assessing infant stimulation.

If the infant is cared for by someone other than his/her mother, such as in day care arrangements, it would be logical to assume that caregiver/infant interaction would be important to the development of the child.

Effects of Day Care on the Infant

Centre Group Versus Family Care

In much of the literature concerning infant day care there exists considerable controversy regarding the merits of family day care as opposed to centre group care (Sale, 1973; Keister and Saunders, 1972). As families are composed of people with various needs, desires, and values in regard to infant care, a much wider perspective is needed. It seems logical to assume that different types of care would appeal to

various families, and that there is room for both family day care and centre group care (Prescott, Jones, and Kritchevsky, 1972). The Child Welfare League of America (1966) stated that both family and group care are needed if we are: "To meet the needs of children of various ages, with differing developmental and emotional needs." (p. 19)

Contradictory findings have been submitted in regard to family day care. Willner (1965) reported from responses made by public health nurses that family day care homes were poor in physical conditions and lacked educational activities and play-things. Sale (1973) and Emlen (1972) stated that they had found family day care to be a warm and personalized type of care while supervising infant intervention programmes. Conflicting reports concerning centre group care were found also. Early research of infants separated from their mothers indicated that there were negative effects for the child (Spitz, 1946). Research in the United States and Canada (Caldwell, 1970; Fowler, 1972; Huntington, Provence, and Parker, 1971) has shown positive effects of group care. Infants involved in centre group programmes under the direction of the above researchers obtained higher scores on standard I.Q. tests than did home care infants. In a study over a two-year period by Keister (1970) 15 centre care infants were compared with 15 home care infants and no significant differences were found in the infants' general development.

Family day care programmes have also received support as providing a positive living and learning environment for infants (Sale, 1973, 1975; Torres, 1971, and Emlen, 1972). At the biennial meeting of the

Society of Research in Child Development in March, 1973, Elizabeth Prescott reported that in the family day care environment:

> Adults...were more available to children than in group care; opportunities to make choices and control the environment; supports for (development of) self-esteem appeared high; and opportunities for cognitive engagement did not appear to be lower in family day care than in open structure group care. (Prescott, 1973, p. 7)

Five possible benefits that family day care might provide were presented by Urich (1972). They were: 1) a more intimate home-like setting than centres; 2) more flexible hours; 3) closer proximity to user's home; 4) closer supervision of the child; 5) closer relationship between provider and user families. She also pointed out three possible disadvantages of family day care: 1) a less stimulating environment for cognitive and physical development; 2) less group experience with peers; 3) less professional supervision and fewer quality controls. Cauman (1961) stated that centre group care is more open to community scrutiny than is family day care. One advantage frequently attributed to family day care was that it is an inexpensive solution to the infant day care problem.

The aspect of quality or good care for infants did not appear to be attributed to either family or centre group day care exclusively (Fein and Clarke-Stewart, 1973). There did not appear to be any published comparative data between unsupervised family day care or centre group care.

One study compared supervised infant family day care and infant centre group care (Keister and Saunders, 1972). The authors reported findings which are not supportive of family day care. Twelve infants

were cared for in family day care and centre group care over a two-year period. The family day care infants showed losses in mental, motor and social development quotients whereas the centre group care infants scored gains in physical, social, and mental development quotients. A frequent criticism of research in this area is that the worst of private family day care is contrasted with the best of centre care (Emlen, 1970). Keister and Saunders, (1972) readily admitted that both the family day care and the centre group care investigated by them could be described as high to medium quality care. Even so, the centre group care appeared to be superior to the family day care from the onset of the study.

The general concensus of present day researchers is that infant out-of-home care can be a positive experience as opposed to being detrimental for children in that it can encourage and stimulate physical, intellectual, psychological, and social development. It is possible for this development to occur either in centre group or family day care programmes. In spite of this, those involved in policy making, legislation, and caregiving in infant day care in Canada appear to have conflicting viewpoints. There is a need, therefore, for research which will help to determine the optimum environment for infant day care.

Environment and Curriculum

The physical environment as well as the infant programme play an important part in determining how a child develops. Several researchers have been involved in studying environments which might accelerate or retard infant growth and development. B. White's (1971) enrichment intervention programme with 9-week-old infants showed that it was

possible to accelerate development by increased sensorimotor stimulation. A negative relationship between the austere custodial environment of infant institutions and infant mental and motor development was reported by Dennis (1960) and Spitz, (1946).

Environmental guidelines have been published by both American and Canadian groups. The 1970 standards for day care centres for infants and children under three years of age, published by the American Academy of Pediatrics, stated specific guidelines in regard to central location, design, construction, heat, light, ventilation, plumbing, maintenance, safety, and equipment. The Canadian 1973 day care guidelines were quite general stating the need for a safe, clean, and stimulating environment as well as enough personnel to ensure that consistent attention is paid to children. A third general guideline stipulated that there must be enough space for a child to live in and be able to explore (Canadian Council on Social Development, 1973).

It was recognized that the toys or tools that are available to the infant were important. A commission on educational toys was set up in France in 1959 to define the qualities required in toys for very young children (0-2 years) especially for normal children brought up in day care centres (Lezine, 1964).

Several research projects involved in infant intervention programmes have outlined infant tasks, toys and games, which provide the infant with stimulation. Tronick, 1973 and Painter, 1971, specified sensorimotor experiences which contributed to motor, social, and cognitive gains made by the infants in the respective programmes. Barbara Mates provides a regular column on infant and toddler

programming in a relatively new periodical on day care and early childhood education. In 1973 two noted American child development specialists designed and tested specialized infant and toddler toys. These toys were sold on the commercial market under the label of Playtensials (Burton White) and Fisher-Price (Jerome Kagan) and have proved to be financially successful for the designers.

According to Tronick (1973) day care for infants and toddlers designed to provide for maximum learning experience as opposed to routine custodial care requires an age-and stage-related curriculum. Games and activities, basically a curriculum, which were interesting, challenging, and appropriate were described by Gordon and Lally (1967) for culturally disadvantaged mothers to use with their infants and toddlers. Many of the activities described have long been used intuitively by mothers to amuse their babies and it was the author's belief that these games and activities help children to use their bodies, learn language, build their beginning store of ideas, and give them good feelings toward their mothers' and themselves. Weikart and Lambie (1969) developed a home teaching programme for disadvantaged infants in Ypsilanti, Michigan which was carried out by public school teachers over a period of six months. The mothers were tutored in teaching their infants specific tasks which were related to three critical areas of development, language, motoric skills, and cognition. The results of this pilot programme for seven infants ranging in age from 4 months to 13 months of age showed that the subjects made significant gains on mental and motor tests during the project. Those gains were above the level which would have been expected on the basis of chronological age.

A formal infant curriculum combining Piaget's (1952) and Erikson's (1963) theories of infant development was developed by Honig and Lally (1972). Lally stated that in an infant education curriculum, intellectual (Piaget) and affective (Erikson) development cannot be separated. According to Piaget (1952) an infant learns by carrying out sensorimotor activities with people, places, and toys. These encounters encourage new learning when they are not too puzzling or difficult, nor yet too well rehearsed or unchallenging. The richer and more varied the opportunities for these interactions the greater a child's chances are in accomplishing the developmental tasks of the first two years of his life. From his study of children Erikson (1963) proposed that the first basic emotional learning task of the infant in the first year of life is learning basic "trust". When a child feels secure and trusts his/her caregiver then learning can take place.

The research and the existing regulations and guidelines for day care indicated the general concerns which experts in the day care field have about the early environment of the infant. The infant curriculum or ways and means to stimulate young children seemed to be more frequently recognized as important for positive development of the infant.

Continuity, Satisfaction and Preferences

The importance of continuity of care, meaning the regular or stable care relationship between an adult and child, has been a controversial issue for many years. University Home Economics schools and faculties did at one time care for infants in home management houses. The care involved several students, carrying out activities such as feeding,

changing, bathing, playing, and loving an infant. This may be viewed as "multiple mothering". Gardner, Hawkes, and Burchinal (1961) conducted a follow-up study of these infants. They found no differences between infants cared for at home and the home management infants, in the areas of school achievement, anxiety, or social adjustment.

The relationship between an infant's need for stable attachments (relationship bonds) and continuity of care by the same caregiver is obvious. An infant appears to be unable to develop attachments to caregivers who are continually different. The study done by M. E. Keister and M. Saunders (1972) comparing family day care with centre group care for infants provided data which showed a greater mobility or less continuity of care in family day care arrangements than in centre group care arrangements. Unfortunately they did not study the effects of continuity as the sample was too small, but it may be an important influence.

A relationship between attachment and exploratory behavior appears to exist (Ainsworth & Wittig, 1969). Infants used their caregivers as bases from which they could set out to explore the environment. When the caregiver left the area, however, the infants decreased their exploratory behaviors and increased their crying. The results of a study carried out by Caldwell, Wright, Honig, and Tannenbaum (1970) indicated a relationship between children having first formed strong secure attachments with one adult with the greater ability to develop attachments to other adults. Fein and Clarke-Stewart (1973) felt that the question of continuity in day care was extremely relevant but nonetheless an ignored or neglected aspect in present day care studies. Continuity

of care appeared to effect infant behaviors but more evidence is needed before a strong stand can be taken on this issue.

Information regarding caregiver and care receiver satisfaction or dissatisfaction with day care arrangements was scanty and varied between type and even within types of programmes. Low and Spindler (1968) and Ruderman (1968) inquired about the dissatisfaction of care receivers with their current child-care arrangements, which were mostly unsupervised family day care or care by relatives. About 10% of the Low and Spindler sample of the care receivers expressed dissatisfaction and 32% of the Ruderman sample expressed dissatisfaction with their child care arrangements. Ruderman explored the reasons for dissatisfaction and found that the most common criticism was that the caregiver's discipline was too lenient. The care receivers also felt that housework and other children reduced the interaction time and care given to their own children. The infant centre group programme at Greensboro in North Carolina sent notes home to the thirty-one care receivers (parents) requesting comments on satisfying and dissatisfying elements in the programme. All replies were positive (Keister, 1970).

In a casual report on the family day care programme supervised by Pacific Oaks, June Sale (1973) stated that general satisfaction about the programme was felt by both caregivers and supervisors. Urich (1972) reported on a study of six family day care systems in Massachusetts which interviewed twenty caregivers. Sixteen of the twenty reported that they were happy, one was unhappy and three were ambivalent or lukewarm in their overall feelings about family day care. Urich concluded that the caregivers in the Massachusetts systems were generally

happy with their roles.

Fein and Clarke-Stewart (1973) pointed out that not all the care receivers who have their children cared for in unlicensed homes by non-relatives are dissatisfied or unhappy with their arrangement. Conversely, not all the care receivers who have their children cared for by relatives or in licensed programmes are satisfied or happy with their arrangement. They were also concerned about the danger of resting the success of a programme on caregiver or care receiver satisfaction. They agree that dissatisfactions and satisfactions of the care receivers and caregivers should be listened to by programme directors. It would not be advisable, however, to have the criteria of caregiver or parental satisfaction or dissatisfaction determine programme content.

Preference as to the type of child care arrangement wanted by a family is only relevant when a choice exists. As families vary in their structure, values, and goals it seems logical that infant day care arrangements would also have to differ in order to meet individual family needs. References to preferences in infant day care arrangements are practically non-existent. Ruderman's (1968) study indicated a strong interest by care receivers in having their children in centre group care if a centre had been available. Some of these care receivers considered centre group care more desirable than family day care. Evans and Saia (1972) were themselves both care receivers and caregivers when their infant son Evan was enrolled in the Castle Square Day Care Centre. Their preference for centre group care was obvious in their book on day care for infants.

Caregivers have stated strong preferences for one type of infant

day care programme over another type. Sulby and Diodati (1975) reported on the Associated Day Care Services of Philadelphia expansion of its family day care programme rather than opening a centre group programme stating:

> Although we have no research, only our own observation, we are convinced that it (centre group) is not the best and is inferior to the kind of family day care programme outlined... (p. 240)

In conclusion, the 1970 CELDIC report recommended that Canadian communities should give priority to developing a variety of day care programmes for infants. When a variety of programmes exists then care receivers and caregivers can choose the programme which they perceive comes closest to meeting their individual needs and thus increase the likelihood that the programme would be more satisfying for both. If the programme is more satisfying for both, the likelihood of continuity is also increased. Knowledge as to whether or not the type of care really influences continuity, satisfaction, or stated preferences could be valuable in planning day care services in Canada.

Legislation

A review of the literature revealed no research into the relationship between quality or good care of infants in out-of-home care arrangements and the legislation or licensing requirements. In their review of day care in the United States Lazar and Rosenberg (1970) pointed out that the early establishment of day care licensing was due largely to the public scandal over abuse of children in some state-subsidized institutions. Legislation has been viewed in two ways. On one hand the view was that licensing requirements should be minimums and

that the standards outlined should be those which must be met in order for a child to develop adequately. The other view was that licensing requirements provided for ideal situations and that infant day care operators should strive to meet these standards even if they are not all necessary to ensure a child's proper growth and development.

Two interesting occurrences were reported in the literature. One was that the various requirements for infant care imposed by governing bodies were ignored and the other was that the people responsible for infant day care often imposed their own rigorous standards when there were no legal requirements. Several investigators in the field of infant day care concurred with Prescott and Jones (1972) who said that "the consistently good conditions of physical care for children...are a result of licensing standards carefully enforced over many years." (p. 72)

The Ontario government's Advisory Council on Day Care in reference to legislation stated in the Progress Report, January, 1975, that physical, social, emotional, and cognitive development is most important during the early years of life. The care given to children during this age period was stressed especially in the area of day care where standards can be set by government and thus better provide an environment conducive for a child to achieve his potential.

The Canadian Council on Social Development published a report on day care standards currently in use in every province in Canada (1976) emphasizing that it is the Provincial Governments who are responsible for determining these standards or regulations. In Canada day care services have become subject to legislation and regulations in all parts

of the country with subsequent differences in each province. Presently five provinces do not even have legislation concerning family day care. Clearly there is much confusion concerning infant day care legislation and regulation.

In summary, it appeared that the relationship between licensing combined with clear-cut regulations and the quality of care of infants should be investigated. The present study was thus undertaken to compare infant day care, in a province (Ontario), where legislation was clear-cut and day care was supervised with infant day care in a province (Manitoba), where legislation was minimal and lacked on-going supervision.

Summary

There was general agreement between researchers and day care workers that infancy is an important period in the life cycle of the human being and that infant day care programmes pose special concerns in fostering growth and development. Research about the early experiences of the human infant in such areas as physical, language, cognitive, and social-emotional development have provided evidence that early stimulating experiences can be influential in helping children reach their potential. Infant programmes have also provided information on how infant day care and infant intervention can be a positive influence on infants as well as meet individual family needs.

Caregiver and care receiver satisfaction with out-of-home infant care as well as preference towards any one type of care in Canada is as yet undocumented. Research has shown a relationship between positive

development and attachment. Hence the question of continuity of infant day care is a concern. Attachment is unlikely to occur without some continuity of contact. Day care is one area where outside or government influence can be enforced via legislation and licensing, thus perhaps affecting the overall development of Canadian infants in out-of-home care. To discover whether government legislation has an effect on the quality of day care, and whether it affects Family Day Care or Centre Group Care differentially was the major purpose of this study.

CHAPTER III

PROCEDURE

Description of Subjects

The subjects consisted of the total population of infants in Winnipeg and a random sample of the infants in Toronto who met the following criteria: (a) agency who cared for infants agreed to participate; (b) infants were 18 months of age or younger; (c) infants' parents who agreed to participate; (d) infants' caregivers who agreed to participate. The infants were using either supervised family or centre group care in Winnipeg, Manitoba or Toronto, Ontario during the period of June 1 to September 1, 1974. The "gatekeeper" approach was used to secure the first names and birthdates of infant participants from the day care agencies. Refer to Appendix A for a list of all participating agencies in Winnipeg and Toronto. Care receivers and caregivers were then approached and asked to participate. In every instance where centre group agencies agreed to participate the caregivers within that agency agreed to participate. All the agencies in Winnipeg and Toronto cooperated in this study, however, there were some caregivers and care receivers who chose not to participate. Refer to Table 2 for breakdown of participants of the study.

Several attempts were made by the investigator to obtain subjects who were using unsupervised family day care. Methods used to secure this group were: (a) newspaper advertisements; (b) radio advertising; (c) television advertisement; (d) flyers placed on grocery store

TABLE 2

Description of Sample

Location and Type of Care	Total No. of Infants in Supervised Day Care	Infant Subjects Dropped*	Care Receivers Dropped*	Caregivers Dropped*	Infant Population Participants
Winnipeg Centre Group Care	20	2	2	0	18
Winnipeg Supervised Family Care	5	0	0	0	5
Toronto Centre Group Care	310	16	16	0	25
Toronto Supervised Family Care	86	11	9	8	25

*Dropped due to refusal, illness, vacation

bulletin boards. The first four methods were used in Winnipeg in June, 1974; Methods (a),(b), and (c) were repeated in Winnipeg in August, 1974 and Methods (a), (b) and (c) were repeated in Winnipeg in September, 1974 with only two positive responses. As the Winnipeg unsupervised family day care sample could not be secured, no attempt to secure the Toronto unsupervised family day care group was made.

The subjects included in this study consisted of 65 care receivers, 63 female, (2 did not indicate sex), their 73 infants, (36 male, 37 female), and their 47 caregivers, all female. The infants ranged in age from two months to eighteen months of age, the care receivers ranged in age from 15-19 years to 35-39 years, and the caregivers ranged in age from 20-24 years to 50 years of age.

Description of the Materials

ABC Checklist. The ABC Checklist (Honig and Lally, 1973) was chosen for this study because: (a) it set up a clear guideline on which infant/caregiver interaction could be observed and evaluated, and (b) the ease with which observers could be trained. Through the use of this checklist it was possible to separate into categories what the caregiver was doing with and for the infant. It should be noted at this time that the present study focused on what was actually happening with the infant, that is, what the caregiver was doing with and for the infant in the care arrangement. The caregiver and not the infant was the one being observed and evaluated. If the caregiver provided a particularly stimulating activity even though the infant did not respond, the caregiver was still credited with having provided the activity. An example

of the ABC Checklist appears in Appendix B. Three observers were trained in the use of this measurement. Two were graduate students from the Department of Family Studies and one was a graduate from the Faculty of Education, University of Manitoba. The inter-observer agreement of 96% reliability was obtained using the following formula:

$$\frac{\text{Number of agreed upon tallies x 100}}{\text{Total possible tallies in category}}$$

This score compared favorably with the 84% inter-observer reliability score achieved by Honig and Lally (1974).

Environmental Checklist. The Environmental Checklist was developed by the investigator utilizing suggestions made at the Canadian Day Care Conference held in Ottawa in 1973 (Canadian Council on Social Development). Seven child development experts rated, in order of importance, the sixteen items which had made up the suggestions pertaining to infant care presented at this conference. The criteria needed for an item to be used was that at least five of the experts had to rate it in the top ten in importance. The highest eleven items made up the Environmental Checklist. An example of the Environmental Checklist appears in Appendix C. Three observers were trained in the use of this measurement. The inter-observer agreement of reliability of 95% was obtained.

Caregiver Questionnaire. The caregiver questionnaire was developed in order to provide descriptive information about the people who were actually caring for the infants. This questionnaire was pretested with ten people known to the investigator and offering care to infants in their homes, but who were not under the supervision of any agency. Information as to the sex, age, marital status, socio-economic status,

and adherence to health requirements was asked. A continuity-of-care question was asked by having the caregiver list the first names and ages of infants cared for during the past year. The caregiver's satisfaction with infant day care arrangement was asked as well as preference in the type of care where the caregiver would like to work and have his/her child enrolled. An example of the Caregiver Questionnaire appears in Appendix D.

Care Receiver Questionnaire. The care receiver questionnaire was developed in order to provide descriptive information about the people who were having their infants cared for by caregivers. This questionnaire was pretested with 10 people known to the investigator who took their infants to caregivers for day care in an unsupervised family setting. A continuity-of-care question was asked having the care receivers list all out-of-home care during an infant's lifetime. Information as to age, marital status, socio-economic status, satisfaction with arrangements, and preference for type of infant day care were asked. An example of the care receiver questionnaire appears in Appendix E.

Description of Observation and Recording

Three observers were trained in the use of the ABC Checklist and the Environmental Checklist and each were assigned to evaluate approximately 25 infant day care arrangements. Approximately one hour per particular infant/caregiver combination was observed with 40 minutes being recorded. The observation period was made up of 40 minutes on one day thus the observation may have been atypical. A schedule of two

minute observation and recording with a rest of 30 seconds between was used four times with a two minute rest after the fourth two minute observation and recording. This procedure was repeated four times. The Environmental Checklist was completed at the beginning of each session. If, however, verbal information was needed to clarify an item this was done at the end of the visit. The caregiver was given the Caregiver Questionnaire at the end of the visit and asked to complete it and return it in the addressed envelope as soon as possible. The anonymity of the subjects was restated at this time to give assurance to the participants. At the end of the visit, the Care Receiver Questionnaire was given to the caregiver with a short note attached restating the anonymity of the subjects and requesting the return of the questionnaire in the addressed stamped envelope as soon as possible. The caregiver was asked to give the care receiver the questionnaire that evening when the care receiver picked up the infant. See Table 3 for information on the number and percentage of responses received.

TABLE 3

Number and Percentage of Responses

NAME	ABC Checklist		Environmental Checklist		Care Receiver Questionnaire		Caregiver Questionnaire	
	No.	%	No.	%	No.	%	No.	%
Winnipeg Centre Group Care	18	100	3	100	18	100	5	100
Winnipeg Supervised Family Care	5	100	5	100	5	100	5	100
Toronto Centre Group Care	25	100	12	100	21	84	16	80
Toronto Supervised Family Care	25	100	25	100	21	84	21	84

CHAPTER IV

RESULTS AND DISCUSSION

Socio-economic Status of Subjects

Prior to testing the hypotheses it may be of interest to examine the sample as to socio-economic status and description of family type. Table 4 shows that the care receivers ranged in socio-economic status as measured by the McQuire-White Index (short from, 1955) from upper class to lower class with the majority being in the middle class group; caregivers ranged in socio-economic status from middle class to lower class with practically an even split in each group. This would support Larson's (1969) speculation that caregivers are probably in a lower socio-economic class than are the infants for whom they care. He proposed that care receivers tend to be of a higher educational status than the caregivers who are at home with their own families and involved in family day care, or employed in low paying jobs such as centre group daycare. The literature suggests that the child rearing attitudes and practises of the lower socio-economic group differ from that of the middle and upper socio-economic group. Thus the children in day care might be exposed to two very different sets of attitudes and practises, their own family's as well as their day care family or centre.

Family Type

It may be seen from Table 5 that the majority of care receivers were two-parent intact families. These findings substantiated

TABLE 4

Socio-Economic Status* of Subjects

Subjects	Type of Legislation	Type of Care	Socio-Economic Status U	M	L
Caregivers N=47	Minimal N=10	Family (N=5)	0	0	5
		Centre (N=5)	0	5	0
	Stringent N=37	Family (N=21)	0	6	15
		Centre (N=16)	0	14	2
Care Receivers N=65	Minimal N=23	Family (N=5)	0	0	5
		Centre (N=18)	0	14	4
	Stringent N= 42	Family (N=21)	1	10	10
		Centre (N=21)	0	16	5

*as measured by McQuire-White Short Form, 1955

TABLE 5

Description of Subjects According to Type of Legislation, Family Type and Type of Care N=112

Type of Legislation	Type of Family	TYPE OF CARE: Family Care Caregiver	Family Care Care Receiver	Centre Group Care Caregiver	Centre Group Care Care Receiver
Minimal N=33	one parent	0	3	4	9
	two parent	5	2	1	9
Stringent N=79	one parent	3	11	6	5
	two parent	18	10	10	16

Ruderman's (1968) report that not only one-parent families were using out-of-home non-relative daycare, while they contradicted Howard Clifford's (1969) report which claimed that one-parent families were the "typical users" of daycare services. The majority of family caregivers were also two-parent intact families. The majority of centre group caregivers were single with no children or from two-parent intact families.

Quality of Care

What was actually happening in infant care arrangements in the two cities was of concern to the investigator. The term "quality" was difficult to define operationally (Caldwell, 1972) and was subject to several different interpretations, nevertheless quality of care was the issue. According to Dr. Mary Elizabeth Keister (1970) "quality" is interchangeable with what she termed the model for "the good life" for infants and toddlers. This model incorporates: caregivers having a sensitive caring attitude about children as well as a two-way relationship of affectionate interest; play activities available but not programmed and the protection of children in health and safety matters. Fowler (1972) and Honig and Lally (1973) have also stressed the importance of caregiver-infant interaction in "quality" infant programmes which they feel must incorporate an appropriate curriculum that has the goal of maximum learning experience, within the daily routines associated with infant care. In the present study the ABC Checklist (Honig and Lally, 1973) which measures infant/caregiver interaction, coupled with the Environmental Checklist developed by the investigator and which

measures the physical environment of the care arrangement were combined to give a picture of the quality of care. According to Prescott and Jones (1972) "a little support for licensing would go a long way in promoting quality in care". Licensing or legislation and its relationship to "quality" is not as yet documented, however, many researchers and lay worker's concur with Prescott and Jones (1972). The following hypothesis was investigated across type of infant day care and presence or absence of specific legislation.

Physical Environment

Hypothesis 1. The quality of arrangements as measured by an Environmental Checklist will be the same for:

(a) infant family day care arrangements and infant centre group care arrangements under stringent legislation.

(b) infant family day care arrangements and infant centre group care arrangements under minimal legislation.

(c) infant family day care arrangements under minimal and under stringent legislation.

(d) infant centre group care under minimal and under stringent legislation.

(a) The chi square statistic was applied to determine if there were significant differences between proportions in each of the eleven categories of the Environmental Checklist. A significance level of $p < .05$ was sufficient to reject the hypothesis. Table 6 illustrates

TABLE 6

Chi Square Analysis of Environmental Checklist Scores According to Type

Item	Criteria	Stringent Legislation Family Day Care (N=25) Percentage Scores	Stringent Legislation Centre Group Care (N=12) Percentage Scores	χ^{2*} (df=1)	p
1	Ratio 1:4	92	33 1/3	16.61	.001
2	50 square feet indoor space	100	92	11.35	.001
3	individual crib	100	100	-	NS
4	hazards inaccessible	48	100	8.55	.01
5	hazards inaccessible	68	100	4.90	.05
6	toys present	100	100	-	NS
7	furniture safe	88	100	1.57	NS
8	equipment in good repair	100	100	-	NS
9	own bottles and eating utensils	100	100	-	NS
10	free from dirt and grime	100	100	-	NS
11	size of group	100	100	-	NS

*Where both family and centre group care scored 100% no analysis was conducted.

significant ($p < .05$) differences in only 4 of the 11 categories where legislation is stringent. The null hypothesis 1a must be accepted in 7 categories and rejected in the following 4 categories: ratio 1:4, family superior, 50 square feet indoor space per child; family superior, hazards inaccessible (electrical wires and plugs); centre superior, hazards inaccessible (open stairwells, outside doors); centre superior.

(b) Table 7 illustrates significant ($p < .05$) differences in only 2 of the 11 categories where legislation is minimal. The null hypothesis 1b must be accepted in 9 categories and rejected in only 2 categories. Family day care was superior to centre group care in both of those categories (ratio 1:4 or less; the size of the group-number of infants present, was either five or under in family day care or twelve or under in centre group care).

(c) Comparing family day care across type of legislation, Table 8 illustrates significant ($p < .05$) differences in only 2 of the 11 categories. The null hypothesis 1c must be accepted in 9 categories and rejected in 2 categories. Family day care where legislation was minimal was superior in 1 category, ratio of 1 adult to 4 infants or less and family day care where stringent legislation was superior in 1 category, each child had an individual crib.

(d) The results shown in Table 9 reveal significant ($p < .05$) differences in 4 of the 11 categories in centre group care across legislation. The null hypothesis 1d must be accepted in 7 categories and rejected in 4 categories. Centre group care where stringent legislation was superior in all 4 categories: individual cribs, hazards inaccessible (electrical wires and plugs), hazards inaccessible (open stairwells,

TABLE 7

Chi Square Analysis of Environmental Checklist Scores According to Type

Item	Criteria	Minimal Legislation			
		Family Day Care (N=5) Percentage Scores	Centre Group Care (N=3) Percentage Scores	χ^{2*} (df=1)	p
1	Ratio 1:4	100	33 1/3	4.44	.05
2	50 square feet indoor space	100	100	-	NS
3	individual crib	60	66 2/3	.15	NS
4	hazards inaccessible	80	66 2/3	.178	NS
5	hazards inaccessible	60	66 2/3	.035	NS
6	toys present	100	100	-	NS
7	furniture safe	40	100	2.87	NS
8	equipment in good repair	100	100	-	NS
9	own bottles and eating utensils	100	100	-	NS
10	free from dirt and grime	100	100	-	NS
11	size of group	100	33 1/3	4.44	.05

*Where both family and centre group care scored 100% no analysis was conducted.

TABLE 8

Chi Square Analysis of Environmental Checklist Scores According to Legislation

Item	Criteria	Minimal Legislation Family Day Care (N=5) Percentage Scores	Stringent Legislation Family Day Care (N=25) Percentage Scores	χ^{2*} (df=1)	p
1	Ratio 1:4	100	92	7.52	.01
2	50 square feet indoor space	100	100	-	NS
3	individual crib	60	100	10.78	.01
4	hazards inaccessible	80	48	1.73	NS
5	hazards inaccessible	60	68	.121	NS
6	toys present	100	100	-	NS
7	furniture safe	40	88	6.02	NS
8	equipment in good repair	100	100	-	NS
9	own bottles and eating utensils	100	100	-	NS
10	free from dirt and grime	100	100	-	NS
11	size of group	100	100	-	NS

*Where both minimal and stringent legislation scored 100% no analysis was conducted.

TABLE 9

Chi Square Analysis of Environmental Checklist Scores According to Legislation

Item	Criteria	Minimal Legislation Centre Group Care (N=3) Percentage Scores	Stringent Legislation Centre Group Care (N=12) Percentage Scores	χ^{2*} (df=1)	p
1	Ratio 1:4	33 1/3	33 1/3	.002	NS
2	50 square feet indoor space	100	92	.267	NS
3	individual crib	66 2/3	100	64.14	.001
4	hazards inaccessible	66 2/3	100	4.29	.05
5	hazards inaccessible	66 2/3	100	4.47	.05
6	toys present	100	100	-	NS
7	furniture safe	100	100	-	NS
8	equipment in good repair	100	100	-	NS
9	own bottles and eating utensils	100	100	-	NS
10	free from dirt and grime	100	100	-	NS
11	size of group	33 1/3	100	9.22	.01

*Where both minimal and stringent legislation scored 100% no analysis was conducted.

outside doors) and size of group, number of infants present, was twelve or less.

It seemed that whatever the legislation, either stringent or minimal, family day care had superior scores on 4 of the 6 statistically significant items. It also appeared that whatever the type of care, either family or centre group, stringent legislation had superior scores on 5 of the 6 significant items of the Environmental Checklist.

These results substantiate the Prescott and Jones (1972) results which relate legislation to better or quality environments. The lack of consistent environmental differences between family day care homes and centre group arrangements does not support the Keister and Saunders (1972) study which compared family day care homes with the infant and toddler centre at Greensboro and found the homes lacking in physical terms in comparison to the centre.

The results from the Environmental Checklist show that much has been done by those reponsible for the infant's caregiving environment to insure its high quality. In five of the eleven categories 92% or more of the day care environments met the following criteria: 50 square feet of indoor space per child; presence of toys; equipment in good repair, each infant had his/her own bottles and eating utensils; environment free from dirt and grime.

Some suggestions reported at the 1973 Day Care Conference in Ottawa in reference to the environment of infant day care must be further explored to determine the advantages to be gained by the infant through

some of the recommendations. The ratio or number of infants per caregiver and the size of the group (number of infants present) would appear to be important although quantity does not necessarily ensure quality (Caldwell, 1972; Fowler, 1972). The amount of usable space per child is another issue with no documented research to determine ideal or even minimum standards. The categories dealing with the health and safety of the infants involved no debate as most researchers and lay workers would agree with Keister (1972) that these items are necessary to ensure the "good life". The importance of toys to the motor, cognitive, and socio-emotional development of infants has been documented by many researchers (Fowler, 1972; Gordon, 1971; Caldwell, 1971).

Summary

The physical environments of all four experimental groups appeared to be of a high quality as measured by the Environmental Checklist. Centre group care where stringent legislation and supervised family care under minimal legislation scored significantly ($p < .05$) higher in seven of the eleven and three of the eleven categories respectively. Thus neither one kind of legislation, stringent or minimal, nor one type of care, centre group or supervised family day care consistently had superior scores on the Environmental Checklist.

Caregiver - Infant Interaction

The importance of the caregiver infant interaction in quality care has been illustrated by Keister (1970) and Honig and Lally (1974). In order to determine if type of day care or legislation had any effect

upon this aspect the following hypotheses was developed:

Hypothesis 2. The quality of arrangement as measured by the ABC Checklist (Honig and Lally, 1973) will be the same for:

(a) infant family day care arrangements and infant centre group care arrangements under minimal legislation.

(b) infant family day care arrangements and infant centre group care arrangements under stringent legislation.

(c) infant family day care arrangements under minimal and under stringent legislation.

(d) infant centre group care under minimal and under stringent legislation.

The scores were first analyzed by cluster. Tables 10 and 11 report t-test scores by cluster of infant/caregiver interaction for each of the four experimental groups studied: Minimal Centre Group Care and Minimal Supervised Family Care, and Stringent Supervised Family Care, and Stringent Centre Group Care. For differences to be significant, a $p < .05$ was required.

The null hypothesis 2a must be accepted in six of the eight clusters and could only be rejected in the Language Facilitation cluster and Caregiving Environment cluster of the ABC Checklist. The null hypothesis 2b must be accepted in six of the eight clusters and rejected in the Piagetian Tasks cluster and Caregiving Environment cluster of the ABC Checklist. The null hypothesis 2c, however, had to be accepted in only two of the eight clusters and could be rejected in the Language Facilitation cluster, the Social Emotional Positive Cluster, the Piagetian Tasks cluster, the Caregiving Child cluster, and the Physical

TABLE 10

t-Test Scores of ABC Checklist Clusters Across Type of Care

Cluster	Minimal Centre/Minimal Family N=18 N=5	*df*	*p*	Stringent Centre/Stringent Family N=25 N=25	*df*	*p*
	t			*t*		
Language	3.638	21	.01	.105	48	NS
Social Emotional +	2.610	21	NS	1.736	48	NS
Social Emotional-	-	-	-	-	-	-
Piagetian Tasks-	1.537	21	NS	2.847	48	.01
Caregiving Child	.520	21	NS	.647	48	NS
Caregiving Environment	3.421	21	.01	5.151	48	.001
Physical Development	.437	21	NS	1.570	48	NS
Does Nothing	-	-	-	-	-	-

Note: Dash (-)indicates data for the "Social Emotional" cluster and the "Does Nothing" cluster were inappropriate for analysis.

TABLE 11

t-Test Scores of ABC Checklist Clusters Across Legislation

Cluster	Minimal Centre/Stringent Centre N=18 N=25 t	df	p	Minimal Family/Stringent Family N=5 N=25 t	df	p
Language	.794	41	NS	4.143	28	.001
Social Emotional+	2.178	41	.05	3.416	28	.01
Social Emotional-	-	-	-	-	-	-
Piagetian Tasks	2.383	41	.05	5.823	28	.001
Caregiving Child	1.221	41	NS	2.703	28	.02
Caregiving Environment	1.159	41	NS	.544	28	NS
Physical Development	2.168	41	.05	2.173	28	.05
Does Nothing	-	-	-	-	-	-

Note: Dash (-) indicates data for the Social Emotional cluster and the Does Nothing cluster were inappropriate for analysis.

Development Cluster of the ABC Checklist. The null hypothesis 2d must be accepted in five of the eight clusters and rejected in the Social Emotional Positive cluster, the Piagetian Tasks cluster and the Physical Development cluster of the ABC Checklist.

Language

In the first cluster, Language Facilitation, family day care under minimal legislation received significantly higher scores, t (21) = 3.638, $p < .01$, than did group day care under minimal legislation. When comparing family day care under minimal legislation and family day care under stringent legislation, family day care under minimal legislation again showed significantly superior language cluster scores, t (28) = 4.143, $p < .001$. Minta Saunders (1971) stated that language begins in infancy, that infants understand many more words than they can say, that adults are language models, and that actions with appropriate words are important for language and cognitive growth. Many researchers and lay workers in infant programmes have stressed the importance of language stimulating activities (Lewis, 1951; Weikart, 1969). Why the groups under minimal legislation were superior to the groups under stringent legislation was perhaps due to the individual caregivers' personalities. Not every adult feels comfortable talking to a young infant who does not respond in kind. The presence of an observer would only compound this feeling.

Social Emotional Positive Activities

The Social Emotional Positive Activities were highly scored by all four groups. This was a very positive indication that this much-needed component in out-of-home non-relative care, a warm loving environment

for the infant is provided whatever the type of care of legislation. There were significant differences, t (41) = 2.178, $p < .05$, between centre group care under minimal legislation and centre group care under stringent legislation. Centre group care under minimal legislation had superior Social Emotional Positive scores. There were also significant differences, t (28) = 3.416, $p < .01$, in Social Emotional Positive scores, between family day care under minimal legislation and family day care under stringent legislation. Family day care under minimal legislation had the superior score. Sally Provence (1967) stressed the role of the nurturing adult in the development of the infant. Indeed, few would dispute the desirability of having a warm loving infant caregiver, (Keister, 1972).

Social Emotional Negative Activities

The Social Emotional Negative scores were small for all four groups. No analysis was attempted on this cluster due to the large number of zero scores. The reasons for a caregiver to impose negative control appear to be diverse, with no outward recorded explanation of their behavior. This appeared to be one area where guidance for the caregivers could be given. Caregiver social emotional negative activity could effect the child's development of a positive self concept as well as basic trust and security in adults and/or the world.

Piagetian Tasks

The Piagetian Tasks, were prepared from Jean Piaget's theoretical perspective on cognitive stimulating activities for the child under two years of age. This investigator believed, prior to the study, that caregivers were doing cognitively stimulating activities with the infants in

their care, but that they were not aware they were doing so. The results showed that some stimulation was present in all the infant's environments. There were significant differences, t (48) = 2.847, $p < .01$, between centre group care and family day care under stringent legislation with centre group care having the superior Piagetian Task score. There were significant differences, t (41) = 2.383, $p < .05$, between centre group care under minimal legislation and centre group care under stringent legislation with centre group care under minimal legislation having the superior score. There were also significant differences, t (28) = 5.823, $p < .001$, between family day care under minimal legislation and family day care under stringent legislation with family day care under minimal legislation having the superior score. This area of cognitively stimulating activities seemed to be of great interest to the agencies as well as the individual caregivers working with infants. Both appeared to be aware of the lack of these activities in their programmes and expressed interest in acquiring more skills. The benefit of cognitively stimulating activities was well documented by such researchers as Fowler (1972), Gordon (1970) and Weikart (1969).

Caregiving Child

The Care of Infant, took into account the physical caretaking of the child/children in care. There were significant differences, t (28) = 2.703, $p < .02$, between family day care under minimal legislation and family day care under stringent legislation with family day care under minimal legislation having the superior physical development score. As these children were under two years of age, it seems likely that much of the caregiver activities would be in the physical care of the child.

The scores substantiated that assumption. Although the caregivers spent a great deal of time caring for the physical needs of the infants, they could be coupling these activities with other stimulating activities as well (Fowler, 1972). An example might be that while feeding a four month old baby a bottle of milk the caregiver could be singing to the child (Language Stimulating Activity), smiling at the child (Social Emotional Activity), or presenting the bottle to be held by the child (prehension-Piagetian Tasks).

Care of Environment

The Care of Environment is another necessary activity done by caregivers if the environment is going to remain clean and pleasant. There were significant differences, t (21) = 3.421, $p < .01$, between centre group care and family day care under minimal legislation with centre group care having the superior score. There were also significant differences, t (48) = 5.151, $p < .001$, between centre group care and family day care under stringent legislation with family day care having the superior score. These activities can also be combined with meeting the needs of the infants (Honig and Lally, 1974). The presentation of a new schema (Piagetian Tasks) might preface the caregiver's sweeping the floor and he/she could be giving eyechecks on the child's activity (Caregiving Child) as well as speaking to the child as the sweeping progresses.

Physical Development

It is of considerable importance for the infant to gain practise and coordination in his/her physical skills. In the Physical Development cluster, there were significant differences, t (41) = 2.168, $p < .05$,

between centre group care under minimal legislation and centre group care under stringent legislation with centre group care under minimal legislation having the superior score. There were also significant differences, t (28) = 2.173, $p < .05$, between family day care under minimal legislation and family day care under stringent legislation with family day care under minimal legislation having the superior score. Janine Levy (1973) in her books, Exercises for your baby, and The Baby Exercise Book, 1975, discussed the importance of large muscle activity and provided several helpful suggestions for games to play with infants to aid in this development. Research in this area was negligible although it was generally accepted that large muscle play is important.

Does Nothing

The category of Does Nothing, must be considered. Unfortunately, no analysis was attempted on this cluster due to the large number of differences between groups in zero scores. If a caregiver does nothing for the infant physically, socially, emotionally or cognitively, the infant cannot survive. This lack of caregiving activity did not appear frequently but there were periods where the caregiver did nothing due to the outward appearance of things being in control. Keister (1970), who believed that the infant should be left to explore and play by himself, would, however, concur that the caregiver should have at the very minimum kept an eye-check on the infant's activity.

Summary

In summary the t-test scores by cluster of the ABC Checklist (Honig and Lally, 1973) showed the following:

a) family day care under minimal legislation was significantly

superior in the language facilitation cluster across type of care and across kind of legislation.

b) centre group care under minimal legislation was superior to centre group care under stringent legislation, and family day care under minimal legislation was superior to family day care under stringent legislation in the Social Emotional Positive cluster. Thus legislation where minimal was superior within one type of day care for this cluster.

c) centre group care under stringent legislation was significantly superior to family day care under stringent legislation in the Piagetian Tasks cluster. Centre group care under minimal legislation was significantly superior to centre group care under stringent legislation and family day care under minimal legislation was significantly superior to family day care under stringent legislation. Thus legislation where minimal was superior for this cluster and centre group care, whatever the legislation was superior to family day care.

d) family day care under minimal legislation was significantly superior to family day care under stringent legislation in the Care of Child cluster.

e) centre group care was superior to family day care where both were under minimal legislation in the Care of the Environment cluster however, family day care was superior to centre group care under stringent legislation for this same cluster thus superiority to type or legislation was inconsistent.

f) In the Physical Development cluster, centre group care under minimal legislation was superior to centre group care under stringent legislation and family day care under minimal legislation was superior to family day care under stringent legislation. Thus minimal legislation across type of care was superior.

In five of the six clusters analyzed minimal legislation appeared to be superior. This appeared within type of care for the Social Emotional Positive cluster and Caregiving Child cluster, as well as across type of care for the Language Facilitation cluster, Piagetian Tasks cluster and Physical Development cluster. Thus it would seem that the presence of stringent legislation and supervision did not lead to higher quality of infant care as recorded by the present study.

Analysis By Items

To further examine the differences between the four experimental groups, an additional series of t-tests were administered for each item within the clusters. Since 160 Student's t-tests were calculated and the possibility that significant results occurring by chance increases with the number of tests calculated, the investigator again raised the required level of significance from $p \leq .05$ to $p \leq .01$.

The null hypothesis 2d must be accepted in 33 categories and rejected in only seven categories. Refer to Table 12. Of the 7 categories which showed significant differences, two were in the Language Facilitation cluster, one in the Social-Emotional-Positive cluster, two in the Piagetian Tasks cluster and two in the Caregiving Child cluster.

Table 12

Difference of Means Test Between ABC Checklist Scores* Across Legislation in Centre Group Care

		Minimal Centre/Stringent Centre N=18 N=25 t		df	p
I.	LANGUAGE FACILITATION				
1.	Elicits vocalization	2.83	(C)	41	.01
2.	Converses with child	2.25		41	NS
3.	Praises, encourages verbally	2.47	(C)	41	NS
4.	Offers help or solicitous remarks	3.11	(C)	41	.01
5.	Inquires of child or makes requests	.70	(C)	41	NS
6.	Gives information or culture rules	.24		41	NS
7.	Provides and labels sensory experience	2.61	(C)	41	NS
8.	Reads or shows pictures to child	1.46		41	NS
9.	Sings to or plays music for child	1.29		41	NS
II.	SOCIAL-EMOTIONAL: POSITIVE				
1.	Smiles at child	3.07	(C)	41	.01
2.	Uses raised, loving, or reassuring tones	2.28	(C)	41	NS
3.	Provides physical, loving contact	1.35	(C)	41	NS
4.	Plays social games with child	.56	(C)	41	NS
5.	Eye contact to draw child's attention	1.51		41	NS
III.	SOCIAL-EMOTIONAL: NEGATIVE				
1.	Criticizes verbally; scolds; threatens	1.62	(C)	41	NS
2.	Forbids, negative mands	.57	(C)	41	NS
3.	Frowns, restrains physically	.31	(C)	41	NS
4.	Punishes physically	-		41	NS
5.	Isolates child physically-behavior modif.	-		41	NS
6.	Ignores child when child shows need for atten.	.08	(C)	41	NS
IV.	PIAGETIAN TASKS				
1.	Object permanence	2.13		41	NS
2.	Means and ends	.66	(C)	41	NS
3.	Imitation	.32	(C)	41	NS
4.	Causality	.23		41	NS
5.	Prehension: small-muscle skills	.68	(C)	41	NS
6.	Space	4.56		41	.001
7.	New schemas	3.36	(C)	41	.01
V.	CARE-GIVING: CHILD				
1.	Feeds	.55		41	NS
2.	Diapers or toilets	.52		41	NS
3.	Dresses or undresses	5.07		41	.001
4.	Washes or cleans child	.75		41	NS
5.	Prepares child for sleep	2.45		41	NS
6.	Physical shepherding	2.04	(C)	41	NS
7.	Eye checks on child's well-being	4.26	(C)	41	.001
VI.	CARE-GIVING: ENVIRONMENT				
1.	Prepares food	.47		41	NS
2.	Tidies up room	.22	(C)	41	NS
3.	Helps other caregiver(s)	1.47	(C)	41	NS
VII.	PHYSICAL DEVELOPMENT				
1.	Provides kinesthetic stimulation	.08	(C)	41	NS
2.	Provides large-muscle play	2.44	(C)	41	NS
VIII.	DOES NOTHING	.97	(C)	41	NS

*See Appendices G + I for raw scores.

Note: In all cases Mean Scores for Stringent Centre Care are higher except for those marked by C.

In five categories the centre type of care under minimal legislation provided a higher score than did the centre type of care under stringent legislation. On the other hand, centre group care where stringent legislation scored significantly ($p < .001$) higher than centre care under minimal legislation in two categories, space in the Piagetian Task cluster and dresses or undresses in the Caregiving Child cluster.

The null hypothesis 2c must be accepted in 30 individual categories and rejected in 10 categories. Refer to Table 13. In all of the 10 categories family day care under minimal had scores which were significantly ($p < .01$) higher than stringent legislation family day care scores. It can be concluded that whatever the type of day care, either centre group or family, day care under minimal legislation was significantly superior according to quality as measured by the individual items on the ABC Checklist in fifteen of the seventeen categories.

The null hypothesis 2b must be accepted in 30 categories and rejected in 10 categories. Refer to Table 14. In nine categories stringent centre care scored higher than stringent family care. In one category, smiles at child, stringent family care scores were higher than stringent centre care scores.

The null hypothesis 2a must be accepted in 33 categories and rejected only in 7 categories. Refer to Table 15. Minimal family care scored significantly ($p < .01$) higher than minimal centre care in 6 of those 7 categories. Whatever the legislation, either minimal or stringent, one type of day care is not consistently superior according to quality as measured by the individual item on the ABC Checklist.

Table 13

Difference of Means Test Between ABC Checklist Scores* Across Legislation in Supervised Family Care

		Minimal Family/Stringent Family N=5 N=25 t		df	p
I.	LANGUAGE FACILITATION				
1.	Elicits vocalization	2.43	(C)	28	NS
2.	Converses with child	1.79	(C)	28	NS
3.	Praises, encourages verbally	5.15	(C)	28	.001
4.	Offers help or solicitous remarks	5.51	(C)	28	.001
5.	Inquires of child or makes requests	1.79	(C)	28	NS
6.	Gives information or culture rules	2.63	(C)	28	NS
7.	Provides and labels sensory experience	3.80	(C)	28	.001
8.	Reads or shows pictures to child	1.94	(C)	28	NS
9.	Sings to or plays music for child	2.01	(C)	28	NS
II.	SOCIAL-EMOTIONAL: POSITIVE				
1.	Smiles at child	4.78	(C)	28	.001
2.	Uses raised, loving, or reassuring tones	7.73	(C)	28	.001
3.	Provides physical, loving contact	.85	(C)	28	NS
4.	Plays social games with child	1.34	(C)	28	NS
5.	Eye contact to draw child's attention	2.11	(C)	28	NS
III.	SOCIAL-EMOTIONAL: NEGATIVE				
1.	Criticizes verbally; scolds; threatens	2.28	(C)	28	NS
2.	Forbids, negative mands	1.65		28	NS
3.	Frowns, restrains physically	-		28	NS
4.	Punishes physically	-		28	NS
5.	Isolates child physically-behavior modif.	-		28	NS
6.	Ignores child when child shows need for atten.	-		28	NS
IV.	PIAGETIAN TASKS				
1.	Object permanence	1.58	(C)	28	NS
2.	Means and ends	1.66	(C)	28	NS
3.	Imitation	1.43	(C)	28	NS
4.	Causality	1.75	(C)	28	NS
5.	Prehension: small-muscle skills	2.78	(C)	28	.01
6.	Space	9.04	(C)	28	.001
7.	New schemas	4.70	(C)	28	.001
V.	CARE-GIVING: CHILD				
1.	Feeds	.48		28	NS
2.	Diapers or toilets	1.70	(C)	28	NS
3.	Dresses or undresses	.32	(C)	28	NS
4.	Washes or cleans child	3.13	(C)	28	.01
5.	Prepares child for sleep	-		28	NS
6.	Physical shepherding	2.25	(C)	28	NS
7.	Eye checks on child's well-being	.68	(C)	28	NS
VI.	CARE-GIVING: ENVIRONMENT				
1.	Prepares food	.77		28	NS
2.	Tidies up room	.83	(C)	28	NS
3.	Helps other caregiver(s)	-	(C)	28	NS
VII.	PHYSICAL DEVELOPMENT				
1.	Provides kinesthetic stimulation	4.64	(C)	28	.001
2.	Provides large-muscle play	.50	(C)	28	NS
VIII.	DOES NOTHING	-		28	NS

*See Appendices H + J for raw scores.

Note: In all cases Mean Scores for Stringent Family are higher except for those marked by C.

Table 14

Difference of Means Test Between ABC Checklist Scores* Across Type of Care Where Legislation is Stringent

	Stringent Centre/Stringent Family N=25 N=25	t		df	p
I.	LANGUAGE FACILITATION				
1.	Elicits vocalization	.77	(C)	48	NS
2.	Converses with child	.75	(C)	48	NS
3.	Praises, encourages verbally	1.51	(C)	48	NS
4.	Offers help or solicitous remarks	.39	(C)	48	NS
5.	Inquires of child or makes requests	2.70	(C)	48	NS
6.	Gives information or culture rules	1.86		48	NS
7.	Provides and labels sensory experience	1.71		48	NS
8.	Reads or shows pictures to child	1.42		48	NS
9.	Sings to or plays music for child	3.16		48	.01
II.	SOCIAL-EMOTIONAL: POSITIVE				
1.	Smiles at child	5.51	(C)	48	.001
2.	Uses raised, loving, or reassuring tones	2.14		48	NS
3.	Provides physical, loving contact	.71	(C)	48	NS
4.	Plays social games with child	1.52	(C)	48	NS
5.	Eye contact to draw child's attention	4.26		48	.001
III.	SOCIAL-EMOTIONAL: NEGATIVE				
1.	Criticizes verbally; scolds; threatens	1.16	(C)	48	NS
2.	Forbids, negative mands	1.42	(C)	48	NS
3.	Frowns, restrains physically	-		48	NS
4.	Punishes physically	-		48	NS
5.	Isolates child physically-behavior modif.	-		48	NS
6.	Ignores child when child shows need for atten.	1.14		48	NS
IV.	PIAGETIAN TASKS				
1.	Object permanence	3.80		48	.001
2.	Means and ends	1.81		48	NS
3.	Imitation	1.36		48	NS
4.	Causality	3.26		48	.01
5.	Prehension: small-muscle skills	.23		48	NS
6.	Space	3.53		48	.01
7.	New schemas	2.23		48	NS
V.	CARE-GIVING: CHILD				
1.	Feeds	1.43	(C)	48	NS
2.	Diapers or toilets	3.48		48	.01
3.	Dresses or undresses	3.85		48	.001
4.	Washes or cleans child	5.83		48	.001
5.	Prepares child for sleep	1.86		48	NS
6.	Physical shepherding	2.00		48	NS
7.	Eye checks on child's well-being	2.09	(C)	48	NS
VI.	CARE-GIVING: ENVIRONMENT				
1.	Prepares food	.43	(C)	48	NS
2.	Tidies up room	4.31		48	.001
3.	Helps other caregiver(s)	-		48	NS
VII.	PHYSICAL DEVELOPMENT				
1.	Provides kinesthetic stimulation	2.66		48	NS
2.	Provides large-muscle play	.32		48	NS
VIII.	DOES NOTHING	1.80	(C)	48	NS

*See Appendices I + J for raw scores.

Note: In all cases Mean Scores for Stringent Centre are higher except for those marked by C.

Table 15

Difference of Means Test Between ABC Checklist Scores* Across Type of Care Where Legislation is Minimal

	Minimal Centre/Minimal Family N=18 N=5 t		df	P
I. LANGUAGE FACILITATION				
1. Elicits vocalization	2.12		21	NS
2. Converses with child	3.37		21	.01
3. Praises, encourages verbally	4.09		21	.001
4. Offers help or solicitous remarks	3.72		21	.01
5. Inquires of child or makes requests	2.34		21	.01
6. Gives information or culture rules	2.07		21	NS
7. Provides and labels sensory experience	2.51		21	NS
8. Reads or shows pictures to child	2.02		21	NS
9. Sings to or plays music for child	1.23		21	NS
II. SOCIAL-EMOTIONAL: POSITIVE				
1. Smiles at child	4.76		21	.001
2. Uses raised, loving, or reassuring tones	3.39		21	.01
3. Provides physical, loving contact	.58		21	NS
4. Plays social games with child	1.62		21	NS
5. Eye contact to draw child's attention	1.64		21	NS
III. SOCIAL-EMOTIONAL: NEGATIVE				
1. Criticizes verbally; scolds; threatens	2.55		21	NS
2. Forbids, negative mands	.97	(C)	21	NS
3. Frowns, restrains physically	-	(C)	21	NS
4. Punishes physically	-	(C)	21	NS
5. Isolates child physically-behavior modif.	-	(C)	21	NS
6. Ignores child when child shows need for atten.	-	(C)	21	NS
IV. PIAGETIAN TASKS				
1. Object permanence	.94		21	NS
2. Means and ends	.24	(C)	21	NS
3. Imitation	.93		21	NS
4. Causality	.03		21	NS
5. Prehension: small-muscle skills	1.96		21	NS
6. Space	1.51	(C)	21	NS
7. New schemas	2.04		21	NS
V. CARE-GIVING: CHILD				
1. Feeds	.69		21	NS
2. Diapers or toilets	.09		21	NS
3. Dresses or undresses	.73		21	NS
4. Washes or cleans child	.08		21	NS
5. Prepares child for sleep	-		21	NS
6. Physical shepherding	.29		21	NS
7. Eye checks on child's well-being	.87	(C)	21	NS
VI. CARE-GIVING: ENVIRONMENT				
1. Prepares food	.25	(C)	21	NS
2. Tidies up room	1.00	(C)	21	NS
3. Helps other caregiver(s)	4.14	(C)	21	.001
VII. PHYSICAL DEVELOPMENT				
1. Provides kinesthetic stimulation	2.72		21	NS
2. Provides large-muscle play	.66	(C)	21	NS
VIII. DOES NOTHING	-	(C)	21	NS

*See Appendices G + H for raw scores.

Note: In all cases Mean Scores for Minimal Family Care are higher except for those marked by C.

Comparison with Honig and Lally (1973) Master Teachers

There was no attempt made to statistically compare the caregivers of the four experimental groups in the present study with Honig and Lally's master teachers because interobserver reliability could not be established. The reader may, however, be interested in examining the data for the present study and the Honig and Lally master teachers study. Refer to Appendix F.

In the Language Facilitation cluster the family day care caregivers under minimal legislation showed comparable scores in eliciting vocalization; conversing with child; giving explanation, information, or culture rules; and reading to or showing pictures to the child. However, this group was observed to spend 50% or more time than the Honig and Lally's master teachers in the following criteria: praising and encouraging verbally; offering help or solicitous remarks; inquires of child or makes requests; labelling sensory experience; singing to or playing music for child. Centre group caregivers under minimal legislation scored much lower than Honig and Lally's master teachers except in the following categories: singing to and playing music for children; labelling sensory experience; and inquiring of child or making requests. Family day care caregivers under stringent legislation scored lower than Honig and Lally's master teachers in every category except inquiring of child or making requests. Centre group caregivers under stringent legislation scored lower than Honig and Lally's master teachers except in the categories of singing to or playing music for children and providing and labelling sensory experiences. Thus it would seem that although the

scores are comparable for all four groups of the present study some improvement is still needed to match Honig and Lally's master teachers.

In the Social Emotional Positive cluster, the family day caregivers under minimal legislation showed superior scores to that of Honig and Lally's master teachers in every category. The other three groups of caregivers, family day care under stringent legislation, centre group care under minimal legislation and centre group care under stringent legislation showed comparable or superior scores to Honig and Lally's master teachers except in the following categories: smiles at child; uses raised, loving, or reassuring tones; and eye contact to draw child's attention.

In the Social Emotional Negative cluster, the four experimental groups' caregivers of the present study had higher mean percentage scores than did Honig and Lally's master teachers except for two categories: forbids, negative words; and punishes physically. Higher scores in this cluster have negative connotations.

The Piagetian Tasks cluster is of particular interest as the four groups of the present study proved consistently superior on only one of the seven categories: prehension. The caregivers in both family and centre group care under minimal legislation also proved superior to Honig and Lally's master teachers in the categories of space and new schemas. This was one area that the caregivers in the present study expressed interest in developing more skills.

In the Caregiving: Child and Caregiving: Environment clusters the four experimental groups of the present study were comparable or

superior in scores to Honig and Lally's master teachers in 50% of the categories. There were no noticeable trends for any of the four groups.

The Physical Development cluster was made up of two categories, provides kinesthetic stimulation and provides large-muscle play. Only the family day caregivers under minimal legislation were superior to Honig and Lally's master teachers in the first category. However, all four experimental groups in the present study were superior to the master teachers in providing large-muscle play for their infants.

Satisfaction

The present investigator believed that information as to the satisfaction or dissatisfaction felt by caregivers and care receivers could provide some insight into what is happening in infant day care. The following hypothesis was developed:

Hypothesis 3. Satisfaction with infant day care arrangements as measured by responses on a questionnaire will be the same for:

(a) infant family day care receivers and infant centre group care receivers under minimal legislation.

(b) infant family day care receivers and infant centre group care receivers under stringent legislation.

(c) infant family day care receivers under minimal and under stringent legislation.

(d) infant centre group care receivers under minimal and under stringent legislation.

(a) Sixty-four of the sixty-five care receivers responded to the Satisfaction question. There was a high degree of very satisfied and

satisfied care receivers. Refer to Table 16. It is interesting to note that 95% of the care receivers who responded said they were satisfied. The investigator considered the responses to this item of questionable validity due to the inconsistency in the respondents statements regarding their satisfaction. The care receivers first reported a high degree of satisfaction and then proceeded to cite reasons for dissatisfaction. Thus the investigator did not test this hypothesis. A sample of their reasons for satisfaction follows: with other children, happier, fills child's needs, learns more, reliable people, well taken care of. However, some care receivers gave reasons for dissatisfaction after stating that they were satisfied. A sample of these replies follows: not enough supervisors, older children agressive, too many children for space. These results agree with Keister's 1970 results of North Carolina group care receivers. When the care receivers were asked about their satisfaction and dissatisfactions, they replied positively. All responded in the satisfied category. However, these results contradict Ruderman's 1968 findings which showed that care receivers were mostly dissatisfied with their infant's care arrangements.

The caregivers were also asked if they were satisfied or dissatisfied with their day care arrangement. Because the investigator considered the responses to this item of questionable validity, due to the inconsistency between the response and the reason for the response, this hypothesis was not tested. Refer to Table 17. Some 85% of the caregivers stated that they were satisfied. Reasons for their satisfaction are found in a sampling of replies: pleasant environment, well staffed, enjoy children, good cooperation with parents, can be at home

TABLE 16

Satisfaction Percentage Scores of Care Receivers*

Care Receivers	N	Very Satisfied %	Satisfied %	Dissatisfied %
Stringent Group	21	47.61	42.85	9.54
Stringent Family	20	25.0	75.0	0
Minimal Group	18	38.88	61.11	0
Minimal Family	5	40.00	40.00	20.00
Total	64	37.872	54.740	7.385

*Don't know and very dissatisfied categories had no responses and therefore for clarity were omitted from table.

TABLE 17

Satisfaction Percentage Scores of Caregivers*

Caregivers	N	Satisfied %	Dissatisfied %
Stringent Group	16	81	19
Stringent Family	21	86	14
Minimal Group	5	100	0
Minimal Family	5	80	20
Total	47	85	15

*The categories of very satisfied, don't know and very dis atisfied had no responses and for clarity were omitted from table.

for extra money. The caregivers who were dissatisfied gave the following as reasons why: loneliness, crying babies get on nerves, poor hours, long hours, low pay.

Preferences in type of Care

Preference for type of infant care arrangement was considered by this investigator to be important. Thus the following hypothesis had been developed.

Hypothesis 4. The type of infant care arrangement preferred will be the same for:

(a) infant care receivers under minimal or under stringent legislation.

(b) infant caregivers under minimal or under stringent legislation.

Care receivers generally stated preference for the type of care they were presently receiving. However, the investigator considered the responses to this item of questionable validity, due to the inconsistency between the response and the reason for that response, thus this hypothesis was not tested.

Fifty-two infant care receivers responded to the question involving preference of type of care. Thirty or 57% of the care receivers preferred centre group care. However, 42 or 82% of the care receivers in this sample are currently using centre group care. Twenty or 38% of the care receivers stated a preference for supervised family care. Table 18 illustrates numerically the stated preferences. Some of the reasons that the care receivers gave for preferring centre group care

TABLE 18

Preference Percentage Scores of Care Receivers*

Care Receivers	N	Type of Care		
		Centre Group %	Supervised Family %	Other %
Stringent Group	24	79	17	4
Stringent Family	5	0	100	0
Minimal Group	18	55.5	39	5.5
Minimal Family	5	20	80	0
Total	52	57.69	38.46	3.89

*Unsupervised family category had no responses and therefore for clarity was omitted from table.

were as follows: he learns more and I don't have to worry about his health or diet; he is much happier; I know she isn't being put in front of the T.V. while someone carries on with her housework; he seems to learn more quickly, talking, feeding himself; I feel a child should be with other children; staff are supervised and I just feel they are great. Some of the reasons that the care receivers gave for preferring supervised family care were as follows: would like the cosy family atmosphere; reliability; more attention may be given to a child when there are less children; I know child being cared for properly and time taken for him; they (agency) make sure child fits in that particular home; she (caregiver) has quick efficient help in an emergency or crisis and knows she'd never be stuck with a child. It is interesting to note that no one stated a preference for unsupervised family care, however, these responses could also be rationalizations on the care receivers part. Two care receivers stated that they would prefer to have children cared for in their own homes with their own toys and not being " dragged around early in the morning" to the centre.

Caregivers were asked what type of care they would prefer to work in. Refer to Table 19. The general preferences of caregivers according to work arrangements followed their present work arrangement whether minimal or stringent legislation and whether centre or family care. The investigator considered the response to this item of questionable validity, due to the inconsistency between the response and the reason for the response, thus this hypothesis was not tested.

Some of the statements where caregivers preferred to work in centre group care are as follows: working conditions are good; better quality

TABLE 19

Work Preference Percentage Scores of Caregivers

Caregivers	N	Type of Care Preferred			
		Centre Group %	Supervised Family %	Unsupervised Family %	Other %
Stringent Group	15	86	7	0	7
Stringent Family	13	23	77	0	0
Minimal Group	5	100	0	0	0
Minimal Family	5	20	60	20	0
Total	38	57.89	36.84	2.63	2.63

of care; most reliable; enjoy working with other adults in a group situation. Some of the statements made by caregivers who preferred to work in supervised family care are as follows: more control over hours and wages; agency provides the children, don't have to advertise; parents feel more secure and we have a chance to share our problems with qualified persons; it's a more relaxed atmosphere; I feel it more closely approximates the home situation.

However, when caregivers were asked what type of care they would prefer to have for their own infants their answers and comments varied across type of arrangement whether minimal or stringent legislation. Refer to Table 20. Between family and group care under stringent legislation the family caregivers generally preferred family day care and centre group caregivers preferred centre group care for their own infants. However, between family and group care under minimal legislation some family caregivers stated a preference to have their own infants cared for in centre group care and centre group caregivers stated a preference to have their own infants cared for in supervised family day care. Eight caregivers or 21% of the sample who answered this question stated a preference of caring for their own infants. However, the validity of these responses were questionable due to the inconsistency of the responses and the reasons for the responses, thus this hypothesis was not tested.

It is interesting to note that Meers (1970) who discussed qualitative differences in communist day care, reported that centre group caregivers used their incomes to employ someone to care for their own children at home. Some of the comments of caregivers in the present study who

TABLE 20

Preference Percentage Scores Where Caregivers Would Have Own Infant Cared For*

Caregivers	N	Type of Care Preferred		
		Centre Group %	Supervised Family %	Other %
Stringent Group	15	80	0	20
Stringent Family	13	0	77	23
Minimal Group	5	20	60	20
Minimal Family	5	40	40	20
Total	38	39.47	39.47	21.05

*Unsupervised family care had no responses and for clarity was omitted from table.

preferred centre group care were as follows: important to learn to play with other children; provides more activities for children; felt that the home and family unit is breaking up and would like to have children raised in a way that would permit them to join society on new terms. Some of the comments of caregivers who preferred supervised family care were as follows: agency checks out home; more individual care; there is nothing like a home where child can relate to a mother and father plus there are less children in a home, thus better care.

Continuity and Convenience

Although no hypotheses were formulated, information was collected regarding: 1) continuity of care and 2) convenience of location of day care arrangements. Care receivers were asked to list all the arrangements in which their infants had been cared for outside the home, taking into account those from which they had withdrawn the infant and why they had withdrawn. Of the 65 care receivers who answered the question, 65 infants had been involved in 111 day care arrangements including their present situations. Table 21 illustrates the continuity of care for these 65 infants. The results lead one to wonder about continuity of care in our present structure.

Caregivers were also asked about the continuity of care that they provided during the past year. Refer to Table 22. Of the 47 caregivers who answered this question there appeared to be little continuous care of the same infant over a one year period. In fact, these 47 caregivers had taken care of over 500 children during the past 12 month period.

TABLE 21

Continuity[1] of Care of Infants

No. of Care Arrangements Including Present Arrangement	Infants in Supervised Family Care		Infants in Centre Group Care		Total
	Wpg. N=5	Tor. N=21	Wpg. N=18	Tor. N=21	N=65
1	5	6	8	14	33
2	0	12	6	5	23
3	0	1	3	1	5
4	0	1	1	1	3
5	0	1	0	0	1
6	0	0	0	0	0

[1] The Operational definition of continuity is: An infant receiving care by the same caregiver in the same location every day that he/she is not in the care of his/her relatives.

TABLE 22

Continuity of Care Provided by Caregiver

No. Infants in care over past 12 mos.	Supervised Family Caregivers		Centre Group Caregivers		Total
	Wpg.	Tor.	Wpg.	Tor.	
1	1	3	0	0	4
2	1	4	0	0	5
3	2	1	0	0	3
4	0	2	0	0	2
5	1	1	0	0	2
6-10	0	10	2	1	13
11-15	0	0	2	2	4
16-20	0	0	1	4	5
21-25	0	0	0	3	3
26-30	0	0	0	3	3
31-35	0	0	0	2	2
36-40	0	0	0	0	0
40-50	0	0	0	1	1
					47 [1]

[1]This table indicates that 47 caregivers took care of over 500 children during 1 year.

Keister and Saunders (1972) found that infants in supervised family day care did not receive as consistent continuous care as those in centre group care. Results of the present study differed in that both types of care had a large and consistent turn-over in infant clients.

Table 23 illustrates the convenience of the day care arrangements as judged by the care receivers. Only the family day care group in the minimum legislative control city reported convenience with four out of five care receivers living within a four block radius of the day care home. In their sample, Keister and Saunders (1972) found that family day care homes were convenient for the low income families but not the middle income families. The general results of this investigation partially substantiate Keister and Saunders results as the majority of care receivers were from the middle socio-economic class and their infant day care arrangements were neither convenient to the care receivers' home nor work.

TABLE 23

Convenience of Arrangement to Home or Work for Care Receivers

	Wpg. Group N=18	Wpg. Family N=5	Toronto Group N=25	Toronto Family N=25
Within a 4 block radius of home	3	4	8	6
Within a 4 block radius of work	5	0	3	2
Other	10	1	10	13
Mode of transport to arrangement:				
Car	8	0	15	11
Cab	0	0	1	0
Bus	8	0	2	7
Bicycle	0	0	0	0
Walk	2	5	3	2
Other	0	0	0	1

CHAPTER V

SUMMARY

The present study was concerned with the quality of physical environment and adult/infant interaction between the two types of infant day care programmes, and the relationship between these and the stringency of day care legislation. The subjects consisted of 65 care receivers and their 73 infants as well as 47 caregivers. Two observational tools were used to evaluate quality. The Environmental Checklist was developed by the investigator to evaluate quality items in the day care environment, and the ABC Checklist (Honig and Lally, 1973) was used to evaluate interaction between day care infants and their caregivers. Observations of approximately one hour were made of the infant day care arrangements using the previously mentioned tools.

The study was unable to support with confidence or reject a relationship between the stringency of day care legislation in two Canadian cities, Winnipeg and Toronto, and the quality of infant care arrangements as measured by the Environmental Checklist or the ABC Checklist (Honig and Lally, 1973). An overview of the results showed that both types of infant day care in Winnipeg (minimal legislation), received higher scores, though not always significantly higher than both types of infant day care in Toronto, (stringent legislation) on the ABC Checklist (Honig and Lally, 1973). On the Environmental Checklist centre group care under stringent legislation and supervised family care under minimal legislation scored significantly ($p < .05$) higher in seven of the eleven and three of the eleven categories respectively.

The results indicated that type of care differed significantly on only some items on the Environmental Checklist. The quality of care as measured by the Environmental Checklist was generally high, ranging from a low score of seven out of eleven items to a high score of eleven out of eleven items. A total score of eleven indicated that the day care arrangement met all of the guidelines set up by the 1973 Canadian Conference on Day Care. It would seem that these Canadian infants were being cared for in good quality physical environments.

The quality of care measuring adult-infant interaction was analyzed by cluster as well as individual categories of the ABC Checklist (Honig and Lally, 1973). Of the eight clusters two were not analyzed, Social Emotional Negative and Does Nothing, due to the presence of zero scores. In five of the six clusters analyzed minimal legislation appeared to be superior. This appeared within type of care for the Social Emotional Positive cluster and the Caregiving Child cluster, as well as across type of care for the Language Facilitation cluster, the Piagetian Tasks cluster and the Physical Development cluster. Thus it would seem that the absence of stringent legislation produces superior quality of care. When the individual categories were analyzed the results generally showed that whatever the type of care, either family or centre group, minimal legislation was superior to stringent legislation. One type of day care, whether under minimal or stringent legislation, was not consistently superior according to quality as measured by the ABC Checklist (Honig and Lally, 1973).

Generally both care receivers and caregivers reported high satisfaction with, and high preference for, the type of care in which the infants were currently involved, although further probing revealed some dissatisfaction and a preference for caring for their own infants themselves in their own homes.

The continuity of care as reported by care receivers was not an exclusive problem of either centre group or family day care but a problem for both types. Convenience of location to home or work appeared troublesome for all but one of the experimental groups, minimal supervised family.

The present research was an initial exploration of the quality of infant day care arrangements in Canada. Currently research is being carried out internationally examining and developing tools other than the ones used in this study. Valid and reliable evaluation tools must be developed and refined to make further research meaningful and useful in improving infant day care standards.

Limitations and Recommendations

The limitations of the study lie mainly in the size of the sample and in the procedures used to obtain it. The Toronto population from which the sample was selected was sufficiently large to use a random sampling technique, but even by using the total population the Winnipeg sample was small. It was unfortunate that the total unsupervised family day care population was not available as there seems to be no appreciable amount of empirical research concerning this group even though the majority of Canadian infants were reported to receive this type of care (Health and Welfare, 1973). The Toronto Social Planning Council has

completed a research study concerning unsupervised family day care which will help serve as a guide for other Canadian cities. It was also unfortunate that there was such a small number of infants in the Winnipeg family day care population. Several factors could account for this. The summer season is the usual vacation period in Canada hence many families were away. The size of the sample could also have been reduced due to care receivers having certain seasonal jobs (e.g. teachers) and although they may use day care arrangements during the winter months when they are employed, they may care for their own infants during the summer months. Care receivers frequently rely on older school children to "babysit" the infants during the summer months and these services are often less costly if not free. Perhaps caregivers also like the hot summer months for vacation and thus they might not want to offer infant care.

The procedure followed to obtain the sample proved to be cumbersome and time consuming. It might have been better and easier to approach all caregivers from supervised settings in Winnipeg and Toronto who cared for infants under eighteen months of age rather than approaching all infants under eighteen months of age who were receiving care in a supervised setting. By following this procedure the same caregivers would have been studied only once rather than more than once as happened several times in the centre group care arrangements.

The Environmental Checklist appeared to be a fairly adequate instrument, however, it could be expanded to include an observation of specific types of toys present. Also this checklist might take a more positive outlook towards the day care arrangement by allotting scores

for what is present as opposed to scores for undesirable elements being absent. The caregiver and care receiver questionnaires could also be further refined. Both questionnaires were long and this might account for only 90% of them being returned, as well as some questions left unanswered. It may be, also, that these issues of satisfactions and preferences might have been handled better by using an interview technique.

Implications

The physical environment of infant day care arrangements were generally good and continued support in order to maintain these good standards is important. The interaction scores between infants and caregivers were lower in comparison to the scores achieved by Honig and Lally's (1973) master teachers in some categories but not in all. However, those low areas would appear to need improvement. Those in decision-making positions in governments, federal, provincial and municipal, as well as in caregiver training programmes, should keep this information in mind when initiating and supervising infant day care programmes. The use of the ABC Checklist (Honig and Lally, 1973) and Environmental Checklist could be valuable in assessing and maintaining quality programmes. The infants involved in the study appeared to be receiving similar care in family and centre group day care however stringent the legislative control. Many care receivers and caregivers stated that they were highly satisfied with their present day care arrangement, but they would really prefer to remain at home and care for their infants themselves. This information suggests that more

assistance is needed to enable people to care for their own infants at home. Of course, this would mean a change in government financial allotments to such programmes as Mother's Allowances. Even with this assistance it is likely that there will still be infants needing out-of-home day care and the quality of that care will continue to be of prime importance. The results of the present study which indicated little differences in quality between centre group and supervised family day care lends support to the proposal to finance both types of care as well as assistance for those care receivers who wish to remain at home with their infants.

In conclusion this investigator continues to feel that it is important to determine whether or not differences in quality of care exist due to type of day care whether centre group or family day care. It is also of extreme importance to determine if legislation makes a difference in the quality of care. When these two points are determined then we can, at the very least, assume a direction towards good care for our infants. The best result however, would be the actual operation of quality care for every infant in Canada.

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APPENDICES

APPENDIX A

Participating Agencies in Winnipeg and Toronto

Winnipeg:

Family Bureau of Greater Winnipeg

Mini-Skools Ltd.

Toronto:

Canadian Mothercraft Society

Edgedwood Manor Day Nurseries

Tinkerbell Infant Day Nursery

Leaside Infant Day Care Centre

Riverdale Day Nursery

University Settlement House

Snowflake Parent-Child Centre

Dovercourt International Infant Care

George Brown College

Seneca College

Mini Skools Ltd.

York University Coop.

Campus (U. of Toronto) Coop Day Care

Victoria Day Care

Family Services of Greater Toronto

Cradleship Creche

Metro Day Nurseries

Humberwoods Nursery School

Taunton Road Nursery

APPENDIX B

ABC-I

ASSESSING THE BEHAVIORS OF CAREGIVERS - INFANT FOLD

Caregiver's Name: _____ Rater: _____

Date_____ Day_____ Time_____

Child's Name				
7-minute Trials				
I. LANGUAGE FACILITATION				
1. Elicits vocalization				
2. Converses with child				
3. Praises, encourages verbally				
4. Offers help or solicitous remarks				
5. Inquires of child or makes requests				
6. Gives information or culture rules				
7. Provides and labels sensory experience				
8. Reads or shows pictures to child				
9. Sings to or plays music for child				
II. SOCIAL-EMOTIONAL: POSITIVE				
1. Smiles at child				
2. Uses raised, loving, or reassuring tones				
3. Provides physical, loving contact				
4. Plays social games with child				
5. Eye contact to draw child's attention				
III. SOCIAL-EMOTIONAL: NEGATIVE				
1. Criticizes verbally; scolds; threatens				
2. Forbids; negative mands				
3. Frowns, restrains physically				
4. Punishes physically				
5. Isolates child physically-behavior modif.				
6. Ignores child when child shows need for atten.				
IV. PIAGETTAN TASKS				
1. Object permanence				
2. Means and ends				
3. Imitation				
4. Causality				
5. Prehension: small-muscle skills				
6. Space				
7. New schemas				
V. CARE-GIVING: CHILD				
1. Feeds				
2. Diapers or toilets				
3. Dresses or undresses				
4. Washes or cleans child				
5. Prepares child for sleep				
6. Physical shepherding				
7. Eye checks on child's well-being				
VI. CARE-GIVING: ENVIRONMENT				
1. Prepares food				
2. Tidies up room				
3. Helps other caregiver(s)				
VII. PHYSICAL DEVELOPMENT				
1. Provides kinesthetic stimulation				
2. Provides large-muscle play				
VIII. DOES NOTHING				

(Honig and Lally, 1973)

APPENDIX C

ENVIRONMENTAL CHECKLIST

Answer yes or no to questions.

1. Is adult/child ratio 4:1 or less? 1. ____
2. Does each child have 50 sq. ft. of usable[1] indoor space. 2. ____
3. Is there an individual crib for each child? 3. ____
4. Are hazards (outside door, stair wells) inaccessible[2] to child? 4. ____
5. Are hazards (electrical outlets and wires) in care area covered? 5. ____
6. Do children have toys to play with? 6. ____
7. Is furniture/equipment free from sharp edges? 7. ____
8. Is equipment in good[3] repair? 8. ____
9. Does each child have their own bottles and eating utensils? 9. ____
10. Is care area free from dirt and grime?[4] 10. ____
11. Are there 5 or less children per group with not more than 2 being under 15 months of age (Family Day Care) or 12 or less children per group (Group Centre Day Care)? 11. ____

OPERATIONAL DEFINITIONS

[1] usable - child able to play or sleep, includes area for crib. *Evaluator judges size of rooms children have access to and then divides by number of children present.

[2] inaccessible - not able to get into; barriers constructed

[3] good - free from splinters, rough edges, holes or breaks in material.

[4] grime - spilt food, mud or foul matter (urine, feces).

APPENDIX D

CAREGIVER QUESTIONNAIRE

Please answer the following questions using the following definitions.

infant = A child who is in the 0 - 18 month age range.

family day care supervised = An arrangement where the infant is cared for in a home, other than his own, for a regular part of the day. This home receives visits and guidance in child care from a social agency.

family day care unsupervised = An arrangement where the infant is cared for in a home, other than his own, for a regular part of the day. This home receives no guidance or visits from social agencies.

centre group care = An arrangement where the infant is cared for in a building other than a private home and where there are at least four other infants receiving care.

1. Please check (✓) your present infant day care arrangement:

___ Family day care supervised, supervised by what agency, (please specify)_____

___ Family day care unsupervised

___ Centre group care

___ Other (please specify) _____

2. Please check (✓) the appropriate categories referring to yourself.

Sex:

___ Male

___ Female

3. Marital Status:

___ Single ___ Divorced

___ Married (living with spouse) ___ Widowed

___ Separated

4. Age:

___ 15 - 19 years
___ 20 - 24 years
___ 25 - 29 years
___ 30 - 34 years
___ 35 - 39 years
___ 40 - 44 years
___ 45 - 50 years
___ 50 years

5. Do you have any children?

___ Yes

___ No

6. If yes to question 5 please state their first names and present ages.

Name	Age

7. Are there any of your children in your present day care group. (Please (✓)).

___ Yes

___ No

8. State the children's first names and ages in your present day care group.

Name	Age

9. Have you had a medical examination in connection with your caregiving job in the past 12 months?

___ Yes

___ No

___ No, but have had a check up which was for other reasons and not specifically connected to caregiving job.

10. If you have answered no to question 9 check one of the following.

___ Would not normally seek out a medical examination unless ill.

___ Would have had a medical in connection with caregiving job but circumstances would not permit.

___ Neither of the above.

11. Have you had a chest X-Ray in connection with your caregiving job in the past 12 months?

___ Yes

___ No

___ No, but had a chest X-Ray which was for other reasons and not specifically connected to caregiving job.

12. If you have answered No to question 11 check one of the following.

___ Would not normally seek out an X-Ray.

___ Would have had an X-Ray in connection with caregiving job but circumstances would not permit.

___ Neither of the above.

13. Were you employed prior to your present job?

___ Yes

___ No

14. If yes to question 13, please state your job title or titles and a brief description of what you did.

_____

_____

_____

_____

15. What is your spouse's job title?_____

16. Give a brief description of his job. _____
_____
_____

17. Check (✓) one for yourself and one for your spouse to indicate how far you both went in school.

	Yourself	Spouse
none	___	___
1st through 4th grade	___	___
5th through 7th grade	___	___
Finished grade 8	___	___
Finished grade 9	___	___
Finished grade 10	___	___
Finished grade 11	___	___
Graduated from high school	___	___
Graduated from technical/training school	___	___
1 or 2 years of College/University	___	___
3 or 4 years of College/University	___	___
College/University graduate	___	___
Graduate school after College/University	___	___

18. Have you had any courses/training in infant care?

___ Yes

___ No

19. If yes to question 18 please list the courses/training.
_____
_____
_____
_____

20. Check (✓) one for yourself and one for your spouse. The main source of family income is:

	Yourself	Spouse
a) wages; hourly wage, piece work, weekly pay cheque	____	____
b) profits and fees from a business or profession	____	____
c) salary paid on a monthly basis	____	____
d) social security or unemployment	____	____

21. How long have you been providing infant day care? (in years) ________years.

22. How many infants have you cared for in the past 12 months? (Please fill in the chart below) - Use back of page if needed.

First Name	Age when Started	Age when left	Reason for Leaving

23. Please check (✓) one of the following:

___ List of question 22 is from written records.

___ List of question 22 is from memory and includes all infants.

___ List of question 22 is from memory and is approximate.

24. Are you satisfied or dissatisfied with your day care arrangement?

___ Satisfied

___ Dissatisfied

25. If satisfied, what are your reasons for being satisfied.

_____

_____

_____

26. If dissatisfied, what are your reasons for being dissatisfied.

_____

_____

_____

27. If you had a choice, which type of infant day care would you prefer to work in? Please check (✓).

___ Family Day Care Supervised

___ Family Day Care Unsupervised

___ Centre Group Care

___ Other, Specify

_____

28. State reasons for your answer to question 27._____

_____

_____

_____

_____

29. If you had a choice of all three types of infant day care where would you prefer to have your infant cared for? Please check (✓).

___ Family Day Care Supervised

___ Family Day Care Unsupervised

___ Centre Group Care

___ Other, Specify

_____

30. State reasons for your answer to question 29.

APPENDIX E

CARE RECEIVER QUESTIONNAIRE

Please answer the following questions using the following definitions.

infant = A child who is in the 0 - 18 month age range.

family day care supervised = An arrangement where the infant is cared for in a home, other than his own, for a regular part of the day. This home receives visits and guidance in child care from a social agency.

family day care unsupervised = An arrangement where the infant is cared for in a home, other than his own, for a regular part of the day. This home receives no guidance or visits from social agencies.

centre group care = An arrangement where the infant is cared for in a building other than a private home and where there are at least four other infants receiving care.

1. Please check (✓) your present infant day care arrangement:

   ___ family day care supervised; supervised by what agency (please specify)_____

   ___ family day care unsupervised

   ___ centre group care

   ___ other (please specify)_____

2. Please check (✓) the area you are living in.

   ___ Greater Winnipeg

   ___ Greater Toronto

3. Please check (✓) the appropriate description of your marital status.

   ___ single

   ___ married (living with spouse)

   ___ separated

   ___ divorced

   ___ widowed

4. Check (✓) one for yourself and one for your spouse to indicate how far you both went in school.

	Yourself	Spouse
none	___	___
1st through 4th grade	___	___
5th through 7th grade	___	___
finished 8th grade	___	___
finished 9th grade	___	___
finished 10th grade	___	___
finished 11th grade	___	___
graduated from high school	___	___
graduated from training/technical course	___	___
1 or 2 years college/university	___	___
3 or 4 years college/university	___	___
college/university graduate	___	___
graduate school after college/university	___	___

5. Check (✓) one for yourself and one for your spouse to indicate the main source of family income.

	Yourself	Spouse
a) wages; hourly wages, piece work, weekly paycheque	___	___
b) profits and fees from a business or profession	___	___
c) salary paid on a monthly basis	___	___
d) social security or unemployment	___	___

6. State your present job title with a brief explanation of the kind of work you do.

_____

_____

_____

7. State your spouse's present job title with a brief explanation of the kind of work done._____

_____

_____

8. Please check (✓) the appropriate category to indicate your age.

___ 15 - 19 years

___ 20 - 24 years

___ 25 - 29 years

___ 30 - 34 years

___ 35 - 39 years

___ 40 - 44 years

___ 45 - 49 years

___ 50 years

9. Please list your children's first names and present ages.

Name Age

_____

_____

_____

_____

_____

_____

_____

10. Have you used infant day care arrangements for your infants prior to now? Please check (✓).

___ Yes

___ No

11. How many children do you have presently in infant day care?

_____

* If answer to question 11 is one child then continue but if more than one fill out questions #12 - 21 for each child.

12. What is the first name and present age of this child?

_____

13. What was the age of this child when he/she first started out of home day care?

_____

14. During the first two years of this child's life please list the day care history you have used and the approximate length of time spent in each, and reason for leaving each. (Please use the following terms when describing arrangement -
    family day care supervised
    family day care unsupervised
    centre group care
    other (specify)

Type of Arrangement	From / To (month, year)	Average hours per day From/To	No. of days per Weeks	Reason for Leaving if no longer using arrang.

15. Do you live within a 4 block radius of the care arrangement? Please check (✓).

    ___ Yes

    ___ No

16. Do you or your spouse work within a 4 block radius of the care arrangement? Please check (✓).

    ___ Yes

    ___ No

17. How do you bring your child to this care arrangement? (car, bus, cab, etc.)

_____

18. How do you feel about your present day care arrangement? Please check (✓).

___ very satisfied

___ satisfied

___ don't know

___ dissatisfied

___ very dissatisfied

19. State the reason for your answer to question 18._____

_____

_____

_____

20. If you had at your convenience all three types of infant day care at the same cost where would you prefer to have your infant cared for? Please check (✓).

___ Family day care supervised

___ Family day care supervised

___ Centre group care

21. State reasons for answer to question 20._____

_____

_____

_____

22. How much <u>more</u> would you be willing to pay for your preferred choice of care arrangement? Please check (✓) one.

___ No more

___ Up to $ .99

___ 1.00 to 4.99

___ 5.00 to 9.99

___ 10.00 to 14.99

___ 15.00 to 19.99

___ 20.00

APPENDIX F

Mean Percentage Scores of ABC Checklist

CATEGORY	Honig & Lally N=2	Stringent Centre N=25	Stringent Family N=25	Minimal Centre N=18	Minimal Family N=5
I. LANGUAGE FACILITATION					
1. Elicits vocalization	42.5	1.8	3.5	8.3	41.3
2. Converses with child	79.2	44.8	50.0	28.8	73.8
3. Praises, encourages verbally	36.1	8.5	15.5	22.6	61.3
4. Offers help or solicitous remarks	30.6	6.5	4.5	23.3	67.5
5. Inquires of child or makes requests	19.2	17.0	30.5	21.2	58.8
6. Gives information or culture rules	28.4	8.8	3.5	7.9	26.3
7. Provides and labels sensory experience	4.0	5.0	2.0	15.6	46.3
8. Reads or shows pictures to child	3.3	3.0	.5	.3	5.0
9. Sings to or plays music for child	6.0	19.8	3.8	10.8	25.0
II. SOCIAL-EMOTIONAL: POSITIVE					
1. Smiles at child	56.5	22.8	52.8	45.5	86.3
2. Uses raised, loving, or reassuring tones	55.8	17.0	8.0	34.0	67.5
3. Provides physical, loving contact	17.0	24.3	29.5	33.3	41.3
4. Plays social games with child	6.0	6.8	11.5	8.3	27.5
5. Eye contact to draw child's attention	50.2	9.8	1.8	6.3	22.5
III. SOCIAL-EMOTIONAL: NEGATIVE					
1. Criticizes verbally; scolds; threatens	0.0	.3	.5	1.7	10.0
2. Forbids, negative mands	9.1	2.3	7.3	3.5	1.3
3. Frowns, restrains physically	0.1	.5	.3	.3	0
4. Punishes physically	0.9	0	0	.3	0
5. Isolates child physically-behavior modif.	0.0	0	0	5.9	0
6. Ignores child when child shows need for atten.	0.1	1.5	.5	4.7	0
IV. PIAGETIAN TASKS					
1. Object permanence	29.3	5.0	.3	2.1	5.0
2. Means and ends	27.0	5.0	1.3	7.3	6.3
3. Imitation	34.4	12.5	8.5	13.9	25.0
4. Causality	37.1	14.8	1.5	13.5	13.8
5. Prehension: small-muscle skills	30.3	52.5	50.5	58.3	76.3
6. Space	11.6	10.0	.5	38.5	28.8
7. New schemas	8.3	5.3	.5	26.7	52.5
V. CARE-GIVING: CHILD					
1. Feeds	22.3	17.0	26.8	13.9	21.3
2. Diapers or toilets	7.8	7.3	.5	5.9	6.3
3. Dresses or undresses	4.3	9.3	2.5	1.0	3.8
4. Washes or cleans child	10.7	9.0	.3	7.3	7.5
5. Prepares child for sleep	5.2	6.8	1.8	.3	0
6. Physical shepherding	7.5	11.3	5.8	19.1	21.3
7. Eye checks on child's well-being	78.3	40.0	57.0	68.1	62.5
VI. CARE-GIVING: ENVIRONMENT					
1. Prepares food	6.3	5.5	7.3	4.5	3.8
2. Tidies up room	28.1	17.5	3.8	18.8	10.0
3. Helps other caregiver(s)	0.0	25.3	0	38.5	2.5
VII. PHYSICAL DEVELOPMENT					
1. Provides kinesthetic stimulation	38.8	19.0	7.0	19.1	41.3
2. Provides large-muscle play	14.5	46.8	43.5	66.0	53.8
VIII. DOES NOTHING	0.0	1.0	3.3	3.8	0

Raw Scores of ABC Checklist Where Minimal Centre Group Care

CAREGIVERS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
I. LANGUAGE FACILITATION																		
1. Elicits vocalization	0	0	0	1	0	0	0	2	2	5	0	1	0	4	3	1	2	3
2. Converses with child	1	0	1	3	9	5	7	2	2	7	0	1	2	8	10	5	7	13
3. Praises, encourages verbally	1	0	0	2	3	5	4	0	0	8	0	1	3	7	9	2	8	12
4. Offers help or solicitous remarks	2	3	0	6	1	3	1	0	0	10	1	1	3	4	9	4	9	10
5. Inquires of child or makes requests	1	3	0	3	3	2	2	1	1	4	1	1	3	6	11	0	8	11
6. Gives information or culture rules	0	0	1	2	0	1	0	0	0	1	2	1	0	1	6	1	5	2
7. Provides and labels sensory experience	0	1	1	4	0	0	0	1	1	4	1	1	2	6	6	2	8	7
8. Reads or shows pictures to child	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
9. Sings to or plays music for child	0	0	0	1	0	0	0	0	0	0	0	10	0	10	0	4	0	6
II. SOCIAL-EMOTIONAL: POSITIVE																		
1. Smiles at child	4	3	1	9	5	2	7	5	5	12	3	5	4	11	13	14	13	15
2. Uses raised, loving, or reassuring tones	0	3	1	1	10	6	4	1	1	11	2	1	4	10	12	9	8	14
3. Provides physical, loving contact	4	4	0	7	11	7	8	1	1	9	2	1	2	7	9	3	7	13
4. Plays social games with child	0	0	0	1	5	1	1	0	0	4	2	0	2	3	1	0	2	2
5. Eye contact to draw child's attention	0	0	0	0	2	2	3	1	1	1	0	0	0	2	1	2	3	0
III. SOCIAL-EMOTIONAL: NEGATIVE																		
1. Criticizes verbally; scolds; threatens	1	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0
2. Forbids, negative mands	1	0	1	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0
3. Frowns, restrains physically	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4. Punishes physically	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
5. Isolates child physically-behavior modif.	0	2	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0
6. Ignores child when child shows need for atten.	2	2	0	0	0	0	0	0	0	0	1	0	9	0	0	0	0	0
IV. PIAGETIAN TASKS																		
1. Object permanence	0	0	1	0	1	1	0	1	1	0	0	0	0	0	1	0	0	0
2. Means and ends	0	0	4	0	0	0	0	1	1	2	0	1	0	3	8	0	0	1
3. Imitation	0	0	2	0	4	2	5	1	1	0	8	4	1	3	7	2	0	0
4. Causality	0	0	0	2	5	9	5	1	1	3	1	4	0	4	2	1	1	0
5. Prehension: small-muscle skills	4	0	6	5	9	14	13	16	16	8	10	16	4	9	15	4	9	10
6. Space	5	0	2	4	6	8	3	4	4	4	8	14	2	8	8	11	13	7
7. New schemas	0	0	2	1	1	1	1	5	5	6	7	6	0	13	11	2	11	5
V. CARE-GIVING: CHILD																		
1. Feeds	1	0	4	0	0	0	6	0	0	4	7	0	0	0	7	0	3	8
2. Diapers or toilets	0	0	1	1	0	1	1	1	1	2	0	1	0	1	0	5	0	2
3. Dresses or undresses	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0
4. Washes or cleans child	0	0	3	2	1	1	2	0	0	1	0	1	0	1	2	4	0	3
5. Prepares child for sleep	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
6. Physical shepherding	1	2	3	3	3	1	6	1	1	5	2	1	1	5	4	2	7	7
7. Eye checks on child's well-being	9	2	5	8	9	13	10	14	14	13	6	15	10	14	15	13	16	10
VI. CARE-GIVING: ENVIRONMENT																		
1. Prepares food	0	0	4	2	1	0	3	0	0	2	0	0	0	0	0	0	0	1
2. Tidies up room	7	0	0	0	2	4	1	5	5	3	2	0	12	3	7	2	0	1
3. Helps other caregiver(s)	0	7	14	5	3	2	1	1	1	8	12	15	15	0	15	6	5	1
VII. PHYSICAL DEVELOPMENT																		
1. Provides kinesthetic stimulation	3	3	1	5	1	0	0	4	4	4	2	3	1	10	4	1	2	8
2. Provides large-muscle play	10	12	5	13	14	15	15	12	12	8	4	16	5	15	8	12	12	4
VIII. DOES NOTHING	2	7	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0

APPENDIX H

Raw Scores of ABC Checklist Where Minimal Supervised Family Care

	CAREGIVERS	1	2	3	4	5
I.	LANGUAGE FACILITATION					
1.	Elicits vocalization	7	4	15	7	0
2.	Converses with child	11	12	16	15	5
3.	Praises, encourages verbally	8	11	13	11	6
4.	Offers help or solicitous remarks	9	10	16	13	6
5.	Inquires of child or makes requests	6	10	14	15	2
6.	Gives information or culture rules	2	6	6	7	0
7.	Provides and labels sensory experience	6	9	12	9	1
8.	Reads or shows pictures to child	0	1	2	1	0
9.	Sings to or plays music for child	3	1	5	1	10
II.	SOCIAL-EMOTIONAL: POSITIVE					
1.	Smiles at child	13	14	15	16	11
2.	Uses raised, loving, or reassuring tones	10	9	13	14	8
3.	Provides physical, loving contact	8	5	13	6	1
4.	Plays social games with child	7	0	9	6	0
5.	Eye contact to draw child's attention	9	5	2	2	0
III.	SOCIAL-EMOTIONAL: NEGATIVE					
1.	Criticizes verbally; scolds; threatens	0	3	2	2	1
2.	Forbids, negative mands	0	0	1	0	0
3.	Frowns, restrains physically	0	0	0	0	0
4.	Punishes physically	0	0	0	0	0
5.	Isolates child physically-behavior modif.	0	0	0	0	0
6.	Ignores child when child shows need for atten.	0	0	0	0	0
IV.	PIAGETIAN TASKS					
1.	Object permanence	2	0	2	0	0
2.	Means and ends	0	1	0	2	2
3.	Imitation	0	4	7	9	0
4.	Causality	0	3	6	2	0
5.	Prehension: small-muscle skills	13	10	10	14	14
6.	Space	5	4	6	3	5
7.	New schemas	9	9	13	9	2
V.	CARE-GIVING: CHILD					
1.	Feeds	1	3	0	4	9
2.	Diapers or toilets	1	3	0	1	0
3.	Dresses or undresses	0	0	3	0	0
4.	Washes or cleans child	1	2	0	2	1
5.	Prepares child for sleep	0	0	0	0	0
6.	Physical shepherding	2	5	6	4	0
7.	Eye checks on child's well-being	11	11	9	9	10
VI.	CARE-GIVING: ENVIRONMENT					
1.	Prepares food	0	0	0	1	2
2.	Tidies up room	0	2	0	0	6
3.	Helps other caregiver(s)	2	0	0	0	0
VII.	PHYSICAL DEVELOPMENT					
1.	Provides kinesthetic stimulation	8	8	9	3	5
2.	Provides large-muscle play	2	13	12	15	1
VIII.	DOES NOTHING	0	0	0	0	0

APPENDIX I

Raw Scores of ABC Checklist Where Stringent Centre Group Care

CAREGIVERS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
I. LANGUAGE FACILITATION																									
1. Elicits vocalization	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	2	1	2
2. Converses with child .	3	4	5	4	8	9	9	4	8	8	14	9	8	10	9	7	12	1	2	9	2	4	8	10	12
3. Praises, encourages verbally	0	0	3	0	1	1	1	1	3	3	3	2	0	1	2	3	0	5	0	0	1	0	1	1	2
4. Offers help or solicitous remarks	1	2	3	4	0	1	0	0	1	1	1	0	2	1	3	0	2	0	1	0	0	1	0	0	2
5. Inquires of child or makes requests	1	1	8	6	3	0	1	5	5	1	6	0	5	6	2	0	4	0	0	3	2	3	4	1	1
6. Gives information or culture rules	0	2	2	2	1	1	0	0	0	0	7	1	5	5	3	0	0	0	0	0	1	1	1	1	2
7. Provides and labels sensory experience	1	2	1	0	2	0	1	0	0	0	5	2	0	0	1	0	1	0	0	0	1	0	1	1	1
8. Reads or shows pictures to child	1	0	0	0	1	0	1	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	1	1
9. Sings to or plays music for child	2	6	1	0	3	0	0	12	14	3	2	8	2	2	0	4	1	0	0	3	0	0	1	8	7
II. SOCIAL-EMOTIONAL: POSITIVE																									
1. Smiles at child	2	2	4	2	3	3	7	1	4	7	8	8	3	2	8	2	3	4	0	5	0	0	3	4	6
2. Uses raised, loving, or reassuring tones	3	3	2	2	4	1	5	0	0	1	6	0	0	5	7	6	1	0	0	6	2	0	1	7	6
3. Provides physical, loving contact	0	3	2	3	3	4	11	1	2	6	9	1	5	5	7	1	8	2	1	6	1	2	4	7	3
4. Plays social games with child	0	0	2	0	3	0	5	0	1	2	0	4	2	1	0	1	0	0	0	1	0	0	4	1	0
5. Eye contact to draw child's attention	1	4	4	1	2	2	2	0	0	3	2	3	0	0	4	1	3	2	0	1	0	0	0	1	3
III. SOCIAL-EMOTIONAL: NEGATIVE																									
1. Criticizes verbally; scolds; threatens	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
2. Forbids, negative wands	0	2	0	0	0	0	0	1	0	0	0	0	2	0	0	0	3	0	0	0	1	0	0	0	0
3. Frowns, restrains physically	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
4. Punishes physically	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
5. Isolates child physically-behavior modif.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6. Ignores child when child shows need for atten.	0	0	0	0	0	0	4	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
IV. PIAGETIAN TASKS																									
1. Object permanence	1	3	3	1	1	0	0	0	1	2	1	2	0	0	0	0	0	0	0	3	0	0	0	0	2
2. Means and ends	3	3	3	5	0	1	0	0	0	0	1	1	0	0	0	0	0	1	0	0	0	0	1	0	1
3. Imitation	1	0	3	0	2	2	1	1	0	4	5	3	3	1	0	1	3	0	0	4	1	1	5	4	5
4. Causality	3	0	0	2	0	1	0	0	2	5	2	12	0	0	0	0	0	2	2	5	4	0	6	10	3
5. Prehension: small-muscle skills	13	13	9	11	6	10	0	8	4	9	12	16	5	5	6	6	7	8	14	6	8	7	12	6	9
6. Space	3	8	2	7	1	0	2	1	0	0	3	3	0	0	0	0	0	0	0	2	0	2	2	4	
7. New schemas	2	1	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	8	3	
V. CARE-GIVING: CHILD																									
1. Feeds	2	1	0	0	1	1	6	7	11	5	0	0	6	5	0	4	1	3	0	0	3	6	4	1	1
2. Diapers or toilets	1	1	1	1	0	2	2	0	1	0	0	0	0	0	1	1	1	3	2	1	8	2	1	0	0
3. Dresses or undresses	0	0	2	1	1	1	3	1	3	2	1	0	0	1	3	1	1	3	3	5	2	2	1	0	0
4. Washes or cleans child	0	4	1	1	1	1	0	1	3	2	3	0	1	0	1	2	1	4	2	2	3	1	2	0	0
5. Prepares child for sleep	0	0	1	0	1	3	0	1	0	0	0	0	7	8	0	0	0	1	0	0	2	3	0	0	0
6. Physical shepherding	0	2	6	1	1	1	1	1	1	0	2	1	5	5	3	0	4	1	0	3	4	3	0	0	0
7. Eye checks on child's well-being	7	6	6	11	4	10	4	1	4	6	3	8	4	6	10	5	6	5	7	11	5	5	10	9	7
VI. CARE-GIVING: ENVIRONMENT																									
1. Prepares food	4	1	0	0	0	0	1	1	1	2	1	0	1	0	0	0	1	3	3	0	1	0	0	1	1
2. Tidies up room	7	4	3	2	3	1	1	5	4	3	2	0	5	5	0	4	6	3	2	1	3	6	0	0	0
3. Helps other caregiver(s)	11	3	4	7	4	4	3	2	1	3	2	0	6	5	6	6	4	4	7	6	5	8	0	0	0
VII. PHYSICAL DEVELOPMENT																									
1. Provides kinesthetic stimulation	0	0	2	6	5	4	1	2	2	12	2	1	2	6	0	0	5	0	0	9	2	3	2	7	3
2. Provides large-muscle play	6	9	9	12	8	7	0	7	4	0	10	10	1	3	7	11	9	9	16	9	2	0	11	13	14
VIII. DOES NOTHING	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

APPENDIX J

Raw Scores of ABC Checklist Where Strinsent Supervised Family Care

	CAREGIVERS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
I.	LANGUAGE FACILITATION																									
1.	Elicits vocalization	0	0	0	0	0	3	0	0	0	0	0	0	0	0	8	0	0	0	0	3	0	0	0	0	0
2.	Converses with child	5	4	7	6	4	14	4	16	5	16	11	5	6	0	6	5	4	16	6	14	10	10	9	7	10
3.	Praises, encourages verbally	0	0	2	0	0	4	2	7	3	7	15	3	1	0	1	0	0	7	0	4	2	2	0	0	2
4.	Offers help or solicitous remarks	0	6	2	2	0	3	0	0	0	0	0	0	2	0	1	0	0	0	2	3	1	1	6	0	1
5.	Inquires of child or makes requests	5	8	3	4	8	7	0	11	2	11	3	2	6	2	4	5	8	11	4	7	2	2	5	0	2
6.	Gives information or culture rules	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3	0	0	0	0	0	6	0	1	0
7.	Provides and labels sensory experience	0	0	0	0	0	3	0	0	0	0	0	0	0	0	2	0	0	0	0	3	0	0	0	0	0
8.	Reads or shows pictures to child	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
9.	Sings to or plays music for child	0	0	0	0	0	1	0	0	2	0	0	2	0	0	0	0	0	6	0	1	1	1	0	0	1
II.	SOCIAL-EMOTIONAL: POSITIVE																									
1.	Smiles at child	10	10	4	3	10	9	7	4	11	4	12	11	4	8	4	10	10	4	3	9	13	13	13	12	13
2.	Uses raised, loving, or reassuring tones	2	0	0	0	0	4	1	0	2	0	5	2	0	0	0	2	0	0	0	4	0	0	9	1	0
3.	Provides physical, loving contact	1	0	0	2	0	1	7	16	3	16	7	3	2	5	3	1	0	16	2	1	4	4	11	9	4
4.	Plays social games with child	0	0	0	0	0	2	6	3	3	5	3	3	2	0	1	0	0	5	0	2	0	0	5	4	0
5.	Eye contact to draw child's attention	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	1	0
III.	SOCIAL-EMOTIONAL: NEGATIVE																									
1.	Criticizes verbally; scolds; threatens	0	0	0	0	0	0	0	0	0	0	0	0	6	0	2	0	0	0	0	0	0	0	0	0	0
2.	Forbids, negative mands	9	1	0	0	1	0	0	0	0	0	0	0	1	0	7	9	1	0	0	0	0	0	0	0	0
3.	Frowns, restrains physically	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
4.	Punishes physically	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.	Isolates child physically-behavior modif.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6.	Ignores child when child shows need for atten.	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
IV.	PIAGETIAN TASKS																									
1.	Object permanence	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.	Means and ends	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	
3.	Imitation	0	1	5	0	1	4	0	0	0	0	1	0	3	0	3	0	1	0	0	6	2	2	1	2	2
4.	Causality	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0
5.	Prehension: small-muscle skills	13	16	15	3	16	7	2	0	8	0	0	8	8	13	8	13	16	0	3	4	11	11	0	16	11
6.	Space	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.	New schemas	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
V.	CARE-GIVING: CHILD																									
1.	Feeds	3	0	1	8	0	1	2	14	5	14	0	5	8	0	0	3	0	14	8	0	4	4	9	0	4
2.	Diapers or toilets	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
3.	Dresses or undresses	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	1	1	2	1	1
4.	Washes or cleans child	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
5.	Prepares child for sleep	0	0	0	0	0	0	2	0	1	0	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0
6.	Physical shepherding	1	2	0	0	2	0	0	0	0	0	0	0	0	0	2	1	2	0	0	0	4	4	0	1	4
7.	Eye checks on child's well-being	15	16	14	14	16	16	9	0	3	0	6	3	5	8	1	15	16	0	14	6	11	11	2	16	11
VI.	CARE-GIVING: ENVIRONMENT																									
1.	Prepares food	0	0	1	11	0	1	0	0	0	0	0	0	3	0	0	0	0	0	11	0	0	0	2	0	0
2.	Tidies up room	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	3
3.	Helps other caregiver(s)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VII.	PHYSICAL DEVELOPMENT																									
1.	Provides kinesthetic stimulation	0	0	0	0	0	0	0	0	2	0	5	2	1	6	0	0	0	0	0	5	0	0	4	3	0
2.	Provides large-muscle play	16	16	15	3	16	10	0	0	0	0	0	0	11	0	8	16	16	0	3	0	10	10	3	11	10
VIII.	DOES NOTHING	0	0	0	2	0	0	2	0	0	0	2	0	0	1	2	0	0	0	2	2	0	0	0	0	0

VITA

Mary Lynn Carmichael Cooper was born in Winnipeg, Manitoba, on July 4, 1946. She received her elementary, and high school education in Winnipeg and graduated from the University of Manitoba with a degree of Bachelor of Home Economics in 1967. She taught in nursery schools and day care centres for over six years in Vancouver, British Columbia, London, Ontario and Winnipeg, Manitoba.