Young Children and Life Stress: Patterns in Play Tactics and Perceived Competence

by

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ABSTRACT

This exploratory study examined the effects of stress and resilience on young children by using observations and interviews to compare the play tactics and perceived competence of 38 four and five year old children according to the stress levels of their families. After determining the number of stressful life events and circumstances experienced, children were categorized into low stress (three or fewer life stressors) and high stress (four or more life stressors) groups. They were then categorized into one of four groups based on adjustment ratings completed by parents and teachers: low stress, stress-resilient children (LS-SR); low stress, stress-affected children (LS-SA); high stress, stress-resilient children (HS-SR); and high stress, stress-affected children (HS-SA).

All of the children engaged in episodes of social exchange with peers more than any other type of play. Episodes of social pretend play found in the observations were then examined for specific tactics used to enter, initiate, sustain, and end the play. Three quarters of the high stress children engaged in social pretend play as compared to only half of the low stress children. All of the groups used both indirect and direct entry tactics and had relatively positive responses from peers. Most of the children just started to play, a social pretend play initiation tactic found frequently in the play of 3 to 5 year old children. The social pretend play dialogues of the HS-SR children were the longest and their dialogues had the highest rate of shared personal experiences. The majority of the social pretend play episode themes involved fantasy play. There were no detectable patterns in the termination tactics used by the children to end their social pretend play episodes.

The children were interviewed about their attitudes towards play and the tactics they use while playing. The majority of children had a positive attitude towards play. The low stress children chose home most frequently as their preferred play site as compared to the high stress children, who chose school most frequently. Thirty eight percent of the HS-SA children responded that they liked to play alone all the time. Interestingly, none of the other children in the study chose playing alone all the time as a preference. When asked about the strategies they would use in a play dilemma, children from each of the

groups had suggestions that were considered negative. Lastly, the self-perceptions of the participating children were assessed and there were no significant differences found between the scores of the low and high stress groups and no significant differences found between the scores of the LS-SR, LS-SA, HS-SR, and HS-SA groups.

Although the social pretend play tactics of the low stress, stress-resilient children and the high stress, stress-resilient children were more developed in this study, the limited sample sizes and the limited data collection period illustrate the need to interpret these results cautiously. Additionally, data trends that were both consistent (e.g., stress-resilient children having more developed play tactics) and inconsistent (e.g., no differences in the perceived competence of low and high stress children) with other research show the need for further, more detailed research in the area of play and more notably, self-perceptions. Given the potentially damaging effects of stress (Honig, 1986) and the positive findings of resilience research (Bloom, 1996; Werner, 1990), further studies are needed to explore more comprehensively whether or not there is a correlation between the levels of stress and the resilient behaviours of young children.

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CHAPTER ONE – OVERVIEW OF STUDY

Introduction

Dealing with stress is a fact of life (Hart, Burts, Durland, Charlesworth, DeWolf, & Fleege, 1998). For young children, the amount of stress they experience continues to grow as societal and familial expectations increase (Elkind, 1981). Although some stressors have positive effects or no effect at all, many stressors negatively affect the development of young children (Honig, 1986; Scardilli, 1995). Considering this negative potential, researchers and practitioners have searched for a way to combat the adverse circumstances associated with stress (Bloom, 1996; Masten & Coatsworth, 1998; Werner, 1990). This search has seen a shift from stress to resilience-related research as the resilience construct is seen as a potentially fruitful area (Werner, 1990). Researchers have gained a greater understanding of the coping strategies needed for children to recover the patterns of adaptation and levels of competence they possessed prior to a high-risk experience (Bloom, 1996; Garmezy, 1993). The resilience construct offers a positive approach to developmental psychology that focuses on the strengths within individuals and the resources available to them in their immediate environment and in the larger context of society (Luthar, 1993; Garmezy, 1993; Werner & Smith, 1992).

Resilience has been explored predominantly in middle childhood and adolescence, with few studies focusing on early childhood (Bloom, 1996; Hoyt-Meyers, 1993; Werner, 1995). There are, however, a growing number of researchers claiming that the early childhood years represent a critical period of development within which the potential for damage influences all subsequent growth and development (Andrews & Trawick-Smith, 1996; Garbarino, Dubrow, Kostelny, & Pardo, 1992; Powell, 1995; Werner & Smith, 1992). In addition to this, research has found that stress experienced by children is associated with behaviour problems, health concerns, low perceived competence ratings, and depression and anxiety (Hoyt-Meyers, 1993; Maginn, 1994). Therefore, understanding and promoting resilience in young children may have powerful effects on their future developmental outcomes.

Of great importance in the early childhood years is the development of social competence and high levels of perceived competence (Garbarino et al., 1992; Howes,

1987; Masten & Coatsworth, 1998; Saracho & Spodek, 1998). Successful growth in these two areas of development contribute significantly to emerging cognitive skills as well as the development of language, problem-solving skills, creativity, emotional adjustment, and motor skills (Garvey, 1990; Rettig & Salm, 1992). To foster social competence and high levels of perceived competence, children need to have positive, age appropriate experiences. For preschool-aged children (four to five years of age), play is the fundamental age appropriate way for them to make sense of the world, develop social competence, and develop strong self-perceptions (Fantuzzo, Sutton-Smith, Coolahan, Manz, Canning, & Debnam, 1995; Rettig & Salm, 1992; Saracho & Spodek, 1998). For young children who have encountered stressful life events and circumstances that increase their risk of developmental damage, positive self-perceptions and play skills that effectively enable them to initiate and maintain successful play experiences are essential in overcoming potentially damaging risks and showing overall growth and development (Fantuzzo, Sutton-Smith, Atkins, Meyers, Stevenson, Coolahan, Weiss, & Manz, 1996; Garbarino et al., 1992; Lieber, 1993).

Purpose of Study

The purpose of this exploratory study was to examine the play tactics and perceived competence of both low and high stress children and stress-resilient children and their stress-affected peers. Observations, interviews, and an objective assessment of self-perceptions were used to look at the play tactics and perceived competence of four and five year old children in preschool settings.

After calculating the stressful life events and circumstances experienced by each child, the children were categorized into two groups: children who had experienced three or fewer stressful life events or circumstances were classified as having low levels of stress and children who had experienced four or more stressful life events or circumstances were classified as having high levels of stress (Werner & Smith, 1982; Wyman, Cowen, Work, & Parker, 1991). The parent and teacher adjustment measures were then used to rate the children within the low and high stress groups: stress-resilient children were those rated as well adjusted or competent in several developmental domains and stress-affected children were those who were not rated as well adjusted by their parents and teachers (Wyman et

al., 1991). Although classifying low stress children as stress-resilient does not fit within the parameters of the resilience definition (i.e., resilience implies coping well with high levels of stress), this group was included in the study as a comparison group.

Initially, observations of free play were coded to see how much time the low and high stress children and the LS-SR, LS-SA, HS-SR, and HS-SA groups of children spent engaged in episodes of social exchanges (exchanges that did not include social pretend play) with peers, social exchanges with teachers, social pretend play, and other play (i.e., solitary functional, constructive, or pretend play) (Lieber, 1993). The specific play tactics found in the episodes of social pretend play were then coded according to the procedure used by Lieber (1993). This adapted version of Goncu's (1987) framework outlining the stages of social symbolic play was used to analyze the specific tactics used by the participating children as they entered, initiated, sustained, and terminated episodes of social pretend play (Goncu 1989; Lieber, 1993). The outcomes of the specific play tactics used during these episodes of social pretend play were also coded.

Following the observations, the participating children were interviewed, using a semi-structured format, about their attitudes towards play and the tactics they use while playing. Content analysis was used to identify any salient patterns found within the interview transcripts.

Lastly, the cognitive competence, physical competence, and peer acceptance sub-scales of the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (Harter & Pike, 1984) were completed with the participating children. Scores were calculated for the low and high stress children and the LS-SR, LS-SA, HS-SR, and HS-SA groups of children and tested for any significant differences.

Research Questions

In order to study the specific play tactics and perceived competence of the low and high stress groups of children and the low stress, stress-resilient (LS-SR) children, low stress, stress-affected (LS-SA) children, high stress, stress-resilient (HS-SR) children, and high stress, stress-affected (HS-SA) children, the following research questions were proposed:

1) Identify the low and high stress children and the LS-SR, LS-SA, HS-SR, and HS-SA children. Were there any significant differences between the number of stressful life events and circumstances experienced by the different groups of children?
2) What was the socio-demographic information for the low and high stress children and the LS-SR, LS-SA, HS-SR, and HS-SA children and were there any significant differences between the groups?
3) What percentage of observed play time did the low and high stress children and the LS-SR, LS-SA, HS-SR, and HS-SA children spend engaged in social exchanges with peers, social exchanges with a teacher, social pretend play, and other play and were there any significant differences between the groups?
4) What were the specific play tactics and outcomes of the low and high stress children and the LS-SR, LS-SA, HS-SR, and HS-SA children as they: (a) entered ongoing social pretend play episodes; (b) initiated social pretend play; (c) maintained social pretend play; and (d) terminated social pretend play episodes?
5) Were there any salient patterns in the play interview responses dealing with the children's attitudes towards play and the tactics they use when playing and were there any differences between the answers of the low and high stress children and the LS-SR, LS-SA, HS-SR, and HS-SA children?
6) What were the perceived competencies of the low and high stress children and the LS-SR, LS-SA, HS-SR, and HS-SA children as measured with the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (Harter & Pike, 1984) and were there any significant differences between the groups?

Summary

Although the information resulting from this study was limited, further studies with larger samples sizes will add to the growing body of stress and resilience research by contributing to the understanding of the thoughts and behaviours of resilient young children. Future research may also be used in practical settings to contribute to an

increased awareness of resiliency among early childhood educators, contribute to the future development of positively oriented measures of specific play tactics which teachers could utilize as a play competence rating system (Fantuzzo et al., 1996), contribute to more informed decision-making regarding the play pairings of children facing different levels of stress and showing different levels of adjustment, and contribute to more informed early intervention program approaches which utilize existing resources to promote strengths within children and empower them to achieve their full potentials (Bloom, 1996). The practical applications of any resulting information are essential, for as Brooks (1994) states, "research with these [resilient] children should be guided not only by a quest for greater understanding of the complex dynamic factors that contribute to resiliency or debilitation, but also by the ongoing question of how to translate research findings into effective interventions" (p. 508).

CHAPTER TWO - REVIEW OF THE LITERATURE

Introduction

Stress is something that every child experiences (Hart et al., 1998). How a child reacts to stressful circumstances depends on his/her background experience and coping strategies as well as the intensity and duration of the stress experienced (Honig, 1986). Although the research on stress and its effect on young children is limited, stress factors have been associated with external problems, including behavioural concerns, health issues, and social adjustment problems and internal problems such as depression, anxiety, and low perceived competence ratings (Garbarino et al., 1992; Honig, 1986; Hoyt-Meyers, 1993; Maginn, 1994; Scardilli, 1995). As researchers and practitioners try to find ways to support the healthy development of young children facing highly stressful circumstances, the concept of resilience has become more prominent. Resilience research offers the opportunity to learn from children who are well adjusted despite having faced high levels of life stress (Hoyt-Meyers, 1993). The lessons learned from these stress-resilient children have and continue to contribute to our greater understanding of the factors involved in successful coping and adjustment (Bloom, 1996; Werner, 1990).

The early childhood years warrant extensive study in the area of stress research because these years encompass a significant developmental period that affects all subsequent growth and development (Andrews & Trawick-Smith, 1996; Garbarino et al., 1992; Werner & Smith, 1992). Additionally, young children today face many more stressful events and circumstances than previous generations have (Hart et al., 1998). These stressors include family turmoil, family separation, illness and death, poverty, and community violence (Howard & Dryden, 1999; Rak & Patterson, 1996; Wyman et al., 1991). By understanding more about the successful adaptation of young children who face high levels of stress, researchers and practitioners can make informed decisions about how to support these children. Additionally, moving away from a deficit-oriented approach allows practitioners to move away from a system where teachers hold lower expectations for children facing high levels of stress (Howard & Dryden, 1999).

In considering the promotion of healthy development in young children, two areas that contribute significantly to the emerging cognitive skills of four and five year olds are

social competence (manifest through effective play tactics) and high levels of perceived competence (Garbarino et al., 1992; Masten & Coatsworth, 1998; Rubin & Coplan, 1998; Saracho & Spodek, 1998). These two areas give young children the confidence and means to understand the world around them. For young children facing high levels of stress, social and emotional competence are valuable in the process of coping and adapting.

Although stress and resilience are seen as important areas of research, few studies have focused on understanding the resilient behaviours of young children. Important resilience studies completed thus far that have focused on young children include the early years of the Kauai longitudinal study (Werner & Smith, 1982), the early years of the Berkley Ego Resiliency Project (Block, 1993), the Minnesota Mother-Child Interaction Project (Farber & Egeland, 1987), the Menniger Coping Project (Murphy & Moriarty, 1976), and the Rochester Child Resilience Project (Wyman et al., 1991; Hoyt-Meyers, 1993). Fewer studies have focused on understanding the relationship between resilience in young children and the development of a young child's social competence (manifest through effective play tactics) and perceived competence. Studies focusing on social competence include the research of Earls, Beardslee, and Garrison (1987), who examined the play behaviours of resilient young children and Fantuzzo et al. (1996), who applied resilience research by developing a resilient peer training program that promoted social competence by pairing resilient and stress-affected young children together as play partners. The work of the Rochester Child Resilience Project (Wyman, Cowen, Work, & Kerley, 1993; Hoyt-Meyers, 1993) is the source of the few studies that link resilience and perceived competencies.

The following review will examine research on childhood stress, resilience, and the importance of the relationship between these factors, and more specifically, research on the play tactics and perceived competence of stress-resilient young children. The framework of this review has been established to consider stress, the effect stress has on young children's development, and the emergence of resilience. The review will also link stress, resilience, play, and perceived competence in young children.

Stress and Its Effect on Young Children

With stress becoming increasingly prevalent in children's lives (Hart et al., 1998), it is important to understand more about it and its potential effect on the development of young children. Stress factors, or stressors, are the biological, psychological, environmental, and social events, hazards, or situations that require more personal energy and resources from an individual then would typically be needed to deal with experiences and they may negatively impact the development of an individual (Garmezy, 1993; Honig, 1986; Howard & Dryden, 1999; Werner, 1990). Conversely, the negative outcomes of stressors can be avoided with successful coping and adaptation strategies (Rak & Patterson, 1996). Stressors can be acute, meaning they are isolated experiences that don't have lasting effects (e.g., hospital visit) or they can be chronic, meaning, they are ongoing situations that have cumulative effects (e.g., divorce of parents, parent with an addiction) (Honig, 1986). Additionally, they can be present either in isolation or in combinations. Stressors include malnutrition; having substance abusing parents; having a severe disability; experiencing divorce; experiencing poverty, homelessness, or dangerous communities; and experiencing limited educational opportunities (Bloom, 1996; Gabarino et al., 1992; Garmezy, 1993; Howard & Dryden, 1999; Masten, 1994; Masten & Coatsworth, 1998; Werner & Smith, 1982).

Stress is an area of research that presents many difficulties because of the variety of conditions and circumstances attached to stressors (e.g., intensity, duration, cumulative effect) and how they interact with the personal background and constitutional make-up of a child (Honig, 1986). It is important to note that children interpret stressful circumstances involving potential stressors differently. While some succumb to negative effects, others see stress as a protective factor through which they may develop more effective coping skills (Cohler, 1987; Earls et al., 1987). A variety of case studies illustrate this point by describing children who are determined to either overcome limitations such as disabilities or remove themselves from the adverse environments they are growing up in (Cohler, 1987; Werner & Smith, 1992). It is also important to note that as children grow and develop, their interpretations of what a risk or protective factor is fluctuates over time, as they interact with different individuals, and as their environmental influences change (Herrenkohl, Herrenkohl, & Egolf, 1994). For example,

a young child who doesn't fully understand the effects of a natural disaster will not be as psychologically vulnerable as an older child who has a better understanding of loss, devastation, and what the disaster means for the future (Masten & Coatsworth, 1998).

Although research studying the effects these stressors have on the development of young children is limited, behaviour problems, health concerns, low perceived competence ratings, depression and anxiety, school failure, and social comprehension and adjustment problems have been associated with children experiencing high levels of stress (Howard & Dryden, 1999; Hoyt-Meyers, 1993; Maginn, 1994). Rutter (1987) found that a single stress factor had little detrimental effect on the development of a child, but as stressors accumulated, the potentially negative effects increased. For example, when a child was faced with four or more stressors, the potential for developmental damage increased tenfold because of the cumulative effects of these stress factors. Researchers have also found that factors that lead to high levels of stress in a child's life influence many facets of his/her life and it is therefore important to study chronic circumstances (e.g., being born into poverty, living with chronic familial tension) using measures such as the Life Events and Circumstances Checklist, rather than focusing on a single risk factor such as divorce (Cowen & Work, 1988; Fantuzzo et al., 1995; Garbarino et al., 1992; Garmezy, 1993; Hoyt-Meyers, 1993; Work, Cowen, Parker, & Wyman, 1990). In considering the cumulative effects of stressors and the chronic circumstances they can create, researchers believe that children who are facing four or more risk factors should be classified as highly stressed (Werner & Smith 1992; Wyman et al., 1991).

Stress research has looked at stress factors, the effect they have on the development of young children, how children perceive these stress factors, and the resources and skills children use to cope with stress (Honig, 1986). This last strand of stress research includes the study of resilience, a positively-oriented approach to understanding how some children can use personal and social resources to adapt more effectively than others to the adverse circumstances they are facing. Researchers believe that understanding more about how and why resilient children develop as they do is considered to be an important key to the "psychology of wellness" which will allow researchers and practitioners to move away from psychology's historical emphasis on deficit and pathology (Cowen & Work, 1988, p. 591). A greater understanding and

promotion of resilience is the key to helping young children cope effectively with the growing number of stressors in their lives (Garbarino et al., 1992; Honig, 1986; Werner, 1990).

What is Resilience?

While a wide range of risk factors, participant groups, and methods have been used in resilience research around the world, a consistent group of findings has shown that some portion of individuals facing adverse conditions will not succumb to the damaging effects of those conditions (Bloom, 1996; Garmezy, 1994; Masten & Coatsworth, 1998; Werner, 1995). Although these figures are not precise, Werner and Smith (1992) found that one third of the highly stressed group of children in their Kauai study were competent and well adjusted. Similarly, Rutter (1979) stated that it was unusual for more than half of the children exposed to adverse circumstances to be negatively affected.

Definitions may vary somewhat, but resilience generally refers to individuals who use internal resources (i.e., constitutional characteristics) and external resources (i.e., family and community) effectively to overcome stressful circumstances and maintain their ability to accomplish developmentally appropriate tasks (Egeland, Carlson, & Sroufe, 1993; Garmezy, 1993). Judgments of resilient behaviour are based on a comparison of typical developmental patterns within normal environmental conditions (Masten, 1994). Resilience implies both a record of successful adaptations when faced with developmental risks, acute stressful events, and chronic adversities as well as the expectation of continued adaptation when confronted with future risks and stressors (Masten, 1994; Werner & Smith, 1992).

The competence or adaptation that a resilient child displays is measured either through internal functioning or external behaviour (Masten, 1994). Healthy internal functioning is measured in terms of psychological wellness and ego strength whereas unhealthy internal functioning refers to psychological distress, depression, and anxiety (Maginn, 1994; Masten, 1994). Block (1993) studied resiliency from the perspective of internal functioning by looking at the ego resiliency (an individual's ability to have control over his/her impulses) of children. Healthy external functioning centres around competence, successful adaptation, and social adjustment whereas unhealthy external

functioning refers to maladjusted behaviours (Masten, 1994). Garmezy and Masten's "Project Competence" research has studied external resilience by examining behaviours related to how a child's effectiveness in his/her environment is achieved and maintained despite risk factors (Masten, 1994). Resilience research has also seen studies that examine both internal and external functioning. For example, Werner and Smith (1992) looked at both internal and external resiliency in their Kauai Longitudinal study by examining the psychological well being and behavioural competence of 698 individuals from the prenatal period through to 32 years of age.

Recently, research on resilience has suggested that it is a domain specific occurrence, meaning that even though an individual may display external resilience (e.g., behavioural competence), his/her internalizing processes may include depression and anxiety (Luthar, 1993; Luthar, Doernberger, & Zigler, 1993). Patterns of increased vulnerability to internalizing problems (e.g., depression, anxiety) have also been found in studies of young children facing potentially high-risk situations (Farber & Egeland, 1987; Werner & Smith, 1992). Additionally, levels of resilience are thought to change as the developmental level of the individual changes and the circumstances the individual is facing change (Herrenkohl et al., 1994). Considering all of the preceding information, it is important to understand what makes some children resilient.

What Makes Young Children Resilient?

In the search to understand why some children are more resistant to the potentially damaging effects of adverse circumstances, many findings have arisen. It is presently thought that, instead of possessing mysterious constitutional characteristics, resilient children have secured important resources that build the protective systems needed to promote positive development and counteract risks that may potentially threaten their development (Masten & Coatsworth, 1998; Werner & Smith, 1992). From resilience research thus far, explanations of why some children overcome adverse circumstances have focused on three areas that are thought to protect or buffer these children from developmental damage: 1) the constitutional make-up of the child (e.g., easy going temperament, responsiveness, outgoingness, independence); 2) the relationships and influence of the child's family (i.e., cohesive families and the absence of family turmoil);

and 3) the influence of the child's community including schools, community groups, and church organizations that support the child's efforts of coping (Bloom, 1996; Cowen & Work, 1988; Garmezy, 1993; Masten & Coatsworth, 1998; Rutter, 1985; Werner, 1990; Werner & Smith, 1992).

The individual characteristics that contribute to resilient behaviours have been found across socio-economic, cultural, and racial contexts (Garbarino et al., 1992; Garmezy, 1993; Rutter, 1987; Werner & Smith, 1992). It is important to remember that these characteristics are only associated with resilience and they do not necessarily have a causal influence (Masten & Coatsworth, 1998). In other words, these characteristics may be a result of competence and success rather than a cause of it.

During the early childhood years, resilient young children exhibit many characteristics that help them cope with the risk factors they may encounter. These young children are alert, cheerful, and independent for their age (Werner, 1990). They have an easy temperament that makes them very compatible with many people and situations (Rutter, 1987). These young children are also learning to balance autonomy with the ability to ask for help when needed as they seek out novel experiences and become more self-reliant (Bloom, 1996; Cowen & Work, 1988; Werner, 1990). They are self-confident and show perseverance as well as age appropriate or higher cognitive and social emotional competencies (Bloom, 1996; Garmezy, 1991; Luthar, 1993). Resilient young children tend to be socially oriented, as they enjoy interacting with others and being involved in play activities (Earls et al., 1987; Werner, 1990). They are also very responsive to others and they seem socially at ease (Garmezy, 1991). These children confront stress instead of succumbing to it and they show the ability to adapt effectively to potentially negative situations (Bloom, 1996; Earls et al., 1987). This ability to cope effectively with stress is made possible because they are flexible, realistic, and have a strong sense of personal control (Werner, 1990). These young children are also developing the problem solving skills and self-help skills that allow them to tolerate higher levels of stress and remain goal-oriented (Bloom, 1996; Garmezy, 1993).

The previously mentioned constitutional characteristics found in resilient young children vary from child to child, but the protective factors found in the immediate social environments (i.e., the family) and the larger social contexts (i.e., the community) of these

children are more narrowly defined (Werner, 1990). The most essential protective factor that all resilient young children have available to them is a secure attachment with a parent or significant caregiver who is competent, stable, and aware of the child's needs (Garmezy, 1993; Rutter, 1987; Werner & Smith, 1992). This unconditional attachment allows these children to build a sense of trust early in their development and it provides them with the support and encouragement they need when taking learning risks and confronting stressful circumstances (Garbarino et al., 1992; Werner, 1995). Other important protective factors that can be found in a resilient child's family include having consistently enforced rules, productive roles of responsibility (e.g., chores), well defined parent and child roles; well balanced discipline where the child has a voice; and being in a family with four or fewer siblings who were born two or more years apart (Bloom, 1996; Werner, 1989). Extended family members also play an important role as grandparents, aunts, and uncles may become surrogate caregivers or positive role models for children whose parents are emotionally or physically unavailable (Garmezy, 1991; Werner, 1990). These emotionally or physically unavailable parents may be dealing with high levels of stress related to issues of poverty or work, they may be dealing with addictions, or they may be physically absent from the child for extended periods of time.

Beyond the family, the community offers additional support to resilient young children as seen in neighbours, friends, schools, and community organizations. Neighbours and friends can act as supplemental supporters, role models, or caregivers for these children depending on the needs of each child (Rutter, 1987). Schools can play a significant role in the lives of these young children because they offer long-term support in a nurturing, responsive environment (Garbarino et al., 1992; Garmezy, 1991; Wang, 1997). Learning environments that foster resilience help young children feel more in control of their world. Teachers can be positive role models as well as possible confidants who offer learning environments that are safe and predictable (Wang & Haertel, 1995). Also, teachers who have high, but realistic goals for their students and are committed to the education of these young children offer them challenging experiences as well as the encouragement and support needed to help them achieve to their fullest potential and overcome their adverse circumstances (Wang, 1997). Community services also play an important part in the larger social context of a child's life. Communities that work

together to have an optimistic outlook and develop programs, including support services, through community agencies and after-school programs contribute to the resilient behaviours of young children (Bloom, 1996). Within the community, faith and spiritual beliefs arising from the membership in a church organization may contribute to a stronger sense of belonging, they may help resilient children feel more in control of their lives, and they may give these children a sense of hope for the future (Garbarino et al., 1992; Werner & Smith, 1992).

The constitutional characteristics of the child, the immediate social context of the family, and the larger social context of the community, as well as how these three areas act as potential buffering factors for resilient children, are an important area of resilience research. Even if the resilience research does not focus specifically on these protective factors or their underlying mechanisms, it is important to consider them as they allow the researcher to look for socio-demographic patterns in resilient and stress-affected children and they provide important insight into the risk factors found in a resilient or stress-affected child's life.

Resilience Research and Young Children

Stress research has seen a shift towards understanding resilient behaviours in individuals and applying this knowledge to prevention and intervention programs (Werner, 1990). Although most of the resilience research conducted thus far has focused on middle childhood and adolescence, there are a growing number of researchers advocating studies and preventive intervention programs focusing on resilient young children (Cowen, Wyman, Work, & Iker, 1995; Masten & Coatsworth, 1998; Werner, 1995; Werner & Smith, 1992; Wolff, 1994). Research on the resilience of young children thus far has used both short-term and longitudinal studies. The short-term studies have found that resilient young children are more autonomous and socially oriented than their stress-affected peers (Werner, 1995). Additionally, the longitudinal studies have found that the characteristics seen in resilient young children predicted continued resilience in their later years (Werner, 1990).

In the Kauai longitudinal study conducted by Werner and Smith (1992), the researchers tracked a 698 member cohort of children born on Kauai in 1955 for 32 years.

The children were followed from the prenatal period to birth, and then again at one year of age, two years of age, ten years of age, 18 years of age, and 32 years of age for physical and psychological health (Werner & Smith, 1992). This study involved pediatricians, psychologists, public health workers, and social workers who used a comprehensive set of competency measures, monitored behavioural adjustment, and conducted interviews with the participants and their families (Werner, 1995). Specifically, this study was monitoring the impact of biological, social, and psychological risk factors and stressful life events on these developing individuals (Werner, 1993). Thirty percent of the cohort was considered to be high-risk because they had experienced prenatal stress, their families were poor, or they lived in environments of family discord, divorce, and psychopathology (Werner, 1995). Of this 30 percent, two thirds had developed serious learning or behaviour problems by the time they were ten and had delinquency records, mental health problems, or were pregnant by the age of 18 (Werner, 1995). However, one third of the at-risk children developed into competent and caring individuals (Werner, 1993).

Werner and Smith (1992) studied the Kauai cohort at two years of age by using temperament ratings, home-based observations, in-depth interviews, physical and psychological well-being assessments, and evaluations of developmental psychosocial functioning. They developed a list of individual characteristics seen in these children during the preschool years that were thought to contribute to their resilience (Werner, 1990). Specifically, these young children exhibiting resilient behaviours were rated as being more alert, affectionate, assertive, confident, and easy to deal with than other children (Werner, 1993; Werner, 1995). They were able to balance their autonomy with an ability to ask for help when needed (Werner, 1993). They also showed more developed communication, locomotion, and self-help skills than their less resilient peers (Werner, 1993). Lastly, they were more likely to seek out novel experiences and they engaged in more social play and interactions than their peers (Werner, 1990). Werner and Smith (1992) found that these characteristics were predictive of continued resilience as these children developed into adults.

Valuable contributions from the Kauai longitudinal study have added to our understanding of the constitutional characteristics (e.g., easy temperament) found in resilient children and the protective factors (e.g., cohesive family, supportive community

agencies) available to these children. In evaluating their study, Werner and Smith (1992) recommended the importance of focusing on the first ten years of a child's life as these early years encompass significant growth and development that affects all subsequent developmental outcomes.

Block and Block, with the Berkeley Ego Resiliency Project, longitudinally studied 130 middle to upper socioeconomic status White children from preschool till they were 23 years of age (Block, 1993). They studied ego-control, which is the degree and kind of control individuals have in expressing and containing their impulses, and ego-resiliency, which refers to an individual's ability to modify his or her level of ego-control according to the environmental context, to understand how children cope effectively with adversities. This longitudinal study started when the children were in nursery school. The children were subsequently assessed at age four, five, seven, 11, 14, 18, and 23 for ego-control and ego-resiliency. The researchers compared children's scores on the ego-resiliency index, which measures performance under stress, to their behavioural ratings completed by nursery school teachers. Ego-resilient young children were categorized as being more task-oriented, socially insightful, self-reliant, self-accepting, and needing less reassurance (Hoyt-Meyers, 1993; Werner, 1990). They were also found to be resourceful and adaptive when dealing with new situations. Block (1993) found consistency in ego-resilience for males over time and consistency in ego-resilience for females only during early childhood and adolescence, but not in between. Block also found consistency in ego-control for both males and females over time.

Farber and Egeland (1987), as part of the Minnesota Mother-Child Interaction Project, studied a group of maltreated (abused or neglected) and nonmaltreated children from birth to five years of age. They attempted to identify the factors that determine when a child is less vulnerable to the potentially damaging effects of maltreatment. The authors examined parental characteristics, child temperament, parent-child interactions, life stress and circumstances, and sources of support. They found that it is highly unlikely that young children living with chronic maltreatment will remain developmentally undamaged. More specifically, most of the maltreated children showed a significant decline in their competence from birth to age five while the majority of nonmaltreated children showed very little decline in their competencies. Despite this, a few children who had established

secure attachments with adults early in their lives remained fairly competent. Also, Farber and Egeland (1987) found that environmental factors were more significant in determining resilience or vulnerability than the constitutional factors of the child. After completing the follow-up 18 years later, the researchers identified a list of factors related to resilient development: a relationship with an emotionally responsive care-giver; early competence; good intellectual and language capacities; an organized home environment; and a low level of risk (Egeland et al., 1993). They state the importance of seeing resilience as "developing over time through the interaction of constitutional and experiential factors in the context of a supportive environment" (Egeland et al., 1993, p. 525).

In their Menninger Coping Project, Murphy and Moriarty (Murphy, 1987; Murphy & Moriarty, 1976) examined resilient children from preschool through to late adolescence to see how they coped with both natural stress (i.e., in their home environment) and examination stress (i.e., laboratory environment) and how their coping strategies were related to temperament and the use of existing resources. A group of 32 White middle socioeconomic status children with above average intelligence were studied. The participating children were observed as they encountered everyday stress (e.g., leaving their mother to do tests with researcher), home stress (e.g., illness, accidents, moving) and crisis situations (e.g., death, funerals, tornado aftermath). Murphy and Moriarty (1976) found many self-protective resources that the children used in their preschool years to cope with vulnerability: they were able to avoid excessive stimulation by being cautious and strategically withdrawing when needed; they realistically appraised their environment and could differentiate between fantasy and reality; they did not over-react to situations; they played actively; and they sought novel play experiences. They also found that these young children had the ability to balance independence with the ability to ask for help when needed and they used adults and peers as resources. Qualities of curiosity, alertness, empathy, problem solving, and autonomy during the preschool years were correlated with effective coping in adolescence.

O'Grady and Metz (1987), in their longitudinal Kaiser Permanente Infant Development Study, identified 51 infants at risk for psychopathology as well as 58 infants who were considered to be low risk. These infants were from predominantly White middle to upper socioeconomic status families with well educated parents. When the

development of these infants was followed up six years later, stressful life events were recorded and measures of social support, locus of control, and school adjustment were completed by parents and teachers. O'Grady and Metz found that the high risk children who experienced significant stress early in life, but showed healthy development during infancy due to the strong support systems in their lives and their strong internal locus of control, had better adjustment ratings at six to seven years of age. Therefore, O'Grady and Metz concluded that strong internal locus of control and strong social support protected these children from risk whereas stressful live events magnified the potential danger of risks.

Tschann, Kaiser, Chesney, Alkon, and Boyce (1996) examined resilience and vulnerability among 145 young children, aged two to five years, by studying the effects of child temperament and stressful family functioning on child behaviour problems. Using the Family Environment Scale to assess the child's family functioning, a temperament questionnaire to assess the child's difficulty/easy ratings and approachability ratings, and the Child Behaviour Checklist to assess the child's behaviour, the authors found that young children with difficult temperaments living in high-conflict families had the most internalizing and externalizing behaviour problems. Tschann et al. also found that regardless of the level of family conflict, children with easy temperaments had fewer behaviour problems. Therefore, they suggest that temperament is involved in both the protective and vulnerability processes of resilience with difficult temperaments leading to increased vulnerability and easy temperaments acting as protective mechanisms.

Project Competence, developed by Garmezy, Masten, and their colleagues, was a longitudinal study designed to both identify factors that predict school-based competence in children facing adverse circumstances and understand how this competence was sustained or recovered in times of high stress (Masten, 1994; Masten, Coatsworth, Neeman, Gest, Tellegen, & Garmezy, 1995). A normative sample of 205 urban children, a group of 32 children with life-threatening congenital heart problems, and a group of 29 severely physically disabled mainstreamed children were studied (Hoyt-Meyers, 1993; Masten, 1994; Masten et al., 1995). Although the participating children were between the ages of eight and 12, an older cohort than the present study, Project Competence has contributed significantly to the findings on external resilience. Garmezy and his colleagues

used laboratory assessments, self-reports, peer and teacher records, standardized tests, and interviews with the participating children and their parents to identify two school competence factors: engagement and disruption (Masten, Garmezy, Tellegen, Pellegrini, Larkin, & Larsen, 1988). Competent children were those who showed higher engagement, higher academic achievement, and lower disruptive scores during periods of high stress (Masten et al., 1988). They were found to have higher IQ scores, better problem solving skills, a better sense of humour, and a better understanding of social situations. Additionally, competence was also found to be associated with higher socioeconomic status standing and stronger family qualities.

The Rochester Child Resilience Project (RCRP), developed by Cowen and his colleagues, has identified factors associated with stress-resilient outcomes in urban grade four to six children in order to generate preventive interventions for highly stressed children (Cowen & Work, 1988; Cowen, Wyman, Work, & Parker, 1990; Cowen et al., 1995; Wyman et al., 1991; Wyman et al., 1993). Although this project has focused on Grade 4 to 6 children, the research procedures used for identifying stress-resilient and stress-affected children are well established and well recognized. The RCRP has also contributed to the understanding of the characteristics found in resilient children and is one of the first studies to move beyond descriptive research and develop preventive intervention programs to assist children facing adverse circumstances. The programs are based on findings from initial RCRP research: stress-resilient children rated themselves as significantly better adjusted than their stress-affected peers; they were more empathic; they had a more realistic sense of control; and they had more effective problem solving skills and coping strategies than their stress-affected peers (Cowen et al., 1995). Stress-resilient children were also found to be more optimistic about the future and they had better parent-child relationships than their stressed-affected peers.

Hoyt-Meyers (1993) adapted the research procedures of the Rochester Child Resilience Project to work with grade two and three children. Hoyt-Meyers found that younger stress-resilient children had good social problem solving skills, realistic control attributions, higher IQ scores, more positive self adjustment ratings, and lower levels of perceived self-efficacy.

In reviewing these studies of resilience in children, it is apparent that a great amount has been learned in several areas: procedures for effectively studying stress-resilient and stress-affected children; characteristics of resilient children; and the protective factors these children use to buffer the effects of risk factors. Within the field of resilience studies, researchers are now moving towards developing programs that apply this knowledge in an effort to prevent the potentially negative effects of adverse circumstances. In the drive towards developing effective intervention and prevention programs for young children facing many risk factors, play is a potentially fruitful area that warrants further studies because of its developmental saliency.

Linking Stress, Resilience, and Play in Early Development

Many young children today are dealing with a variety of risk factors including poverty, abuse, neglect, community violence, alcoholic parents, parents with mental illness, and biological complications such as birth deficits or cerebral palsy (Anthony, 1987; Farber & Egeland, 1987; Garbarino et al., 1992; Garmezy, 1993; Werner, 1990; Werner & Smith, 1992). Additionally, important components in young childrens' lives such as an unconditional attachment with a significant care-giver and a predictable environment that typically gives them a sense of control are not always available and, consequently, the risk of developmental damage increases significantly (Garbarino et al., 1992; Garmezy, 1991; Raver & Zigler, 1997). In order for young children to overcome these potential adversities, they need to become socially and emotionally competent (Garbarino et al., 1992).

For preschool children, the acquisition of social skills and healthy emotional development through successful play interactions is an essential developmental task that helps them overcome adversities by teaching them to make use of their environment and the personal resources available to them (Elkind, 1981; Fantuzzo et al., 1995). Socially competent young children, or good players, are said to conduct themselves in a positive way, they understand that non-literal themes can be shared through play, they possess the communication and negotiation skills needed to develop mutually meaningful play themes, and they display play behaviours and tactics that lead to successful interactions through which they are well liked by others (Creasey, Jarvis, & Berk, 1998; Goncu, 1987; Rubin &

Coplan, 1998). Other important social-cognitive skills needed for successful social pretend play interactions include social role understanding and conflict resolution skills as the children negotiate play themes and scripts (Howes, 1992). With social competence and play so closely linked together, play emerges as an effective means of evaluating coping skills and promoting resilient behaviour (Grossman & Shigaki, 1991).

Play opportunities offer the potential for strong developmental growth because they are open-ended learning experiences that have no assigned or expected products (Garbarino et al., 1992; Lowenfeld, 1991; Pellegrini, 1998). Play is seen as an essential part of a young child's development (Weinberger & Starkey, 1994). The learning conditions found through play afford young children the freedom to explore, test, and invent an entire set of possibilities which help them gain a greater sense of control, maintain a sense of self-worth and self-esteem, increase their confidence levels, and establish relationships in which they may learn to trust (Creasey et al., 1998; Garbarino et al, 1992; Howes, 1992; Pellegrini, 1998; Saracho & Spodek, 1998). Fisher (1992), through his meta-analysis on play and development, provides empirical evidence to support the fact that play has a impact on the development of young children: play has been shown to enhance the early development of children significantly by reducing language difficulties, social emotional difficulties, and non-achievement. Additionally, if young children are unable, through play, to develop the important qualities associated with social competence, they will most likely experience continued social maladjustment throughout their lives, especially if they live in an unsupportive environment (Creasey et al., 1998; Fantuzzo et al., 1995; Rubin & Coplan, 1998).

According to the cognitive theory of play, the type of play that is most relevant to young children (four to five years of age) is dramatic play (Goncu, 1987; Howes, 1992; Lieber, 1993; Piaget, 1962; Smilansky, 1968; Weinberger & Starkey, 1994). Through this type of play, children are coming to understand the adult world while simultaneously creating imaginative scenarios that satisfy their needs (Smilansky, 1968; Smilansky, 1990). At the most developed level of dramatic play, also known as sociodramatic or social pretend play, children develop more complex scenarios in accordance with at least one other child both verbally and through actions (Smilansky, 1968). The play episodes of these young children become longer, more complex, and more varied as they develop a

broader range of playmates (Rubin & Coplan, 1998). Typically, young children use this social pretend play in their social exchanges to deal with stress, to master communication, to learn negotiation skills through learning control and compromise, to think and act in a flexible manner, to think representationally, to become more organized and able to plan, and to take part in role enactment (Elkind, 1981; Howes, 1992; Lieber, 1993; Rubin & Coplan, 1998; Weinberger & Starkey, 1994). Considering the nature of social pretend play, children work through concerns and fears in a safe atmosphere that makes it easier for them to explore and discuss these personal issues related to experience and emotions (Rubin & Coplan, 1998).

Given that social pretend play is considered the highest form of dramatic play in young children and it is a marker of social competence (an important area of development in resilient young children), its examination may act as a significant indicator of resilience as well as a potential means of intervention (Howes, 1992). Trad (1990) supports this by stating that play is a diagnostically useful and reliable way of detecting pathology in children. Play can also be considered as a tool that yields information on the positive adaptability practices and potentials in children, thus acting as a means of fostering resilient behaviours in young children. This exploration may give researchers and practitioners new insights into protective factors and the underlying mechanisms within the resiliency process.

Play Research and Young Children

Hughes (1998) states that little is known about the play of young children whose development is potentially threatened by emotional, physical, or intellectual challenges. Studying the play of resilient young children illustrates the value in discovering more about the play of children with special needs as well as the potential play offers in developing programs that help young children cope with adverse circumstances.

In their study of 100 three-year-old children, Earls et al. (1987) sought to explore the temperaments, home environments, and play competence of resilient young children in order to generate hypotheses about their salient competencies. Stress factors the participating children were dealing with included the marital separation of parents, depression in mothers, the absence of fathers, and the birth of siblings. Earls et al. used a

comprehensive interview with parents about their children (including behavioural problems reported from the Behaviour Screening Questionnaire and temperament scores) and a one hour home-based play session that focused on the child's initial play engagement, the child's development of symbolic play themes, and the child's termination of play. From this data, they used low behaviour screening scores and the absence of clinical assessments of emotional concerns as indicators of healthy adjustment. Twenty children met these criteria and a group of play characteristics that was most highly correlated with these children was established: high play involvement, high levels of play initiation, and the development of understandable play themes. They found little correlation between the resilient children's home environments and their behaviour. Instead, they found that the personal-social qualities of these young children had the highest correlation with the occurrence of resilient behaviours. More specifically, adaptability as seen in the child's ability to deal with transitions, responsiveness to environmental stress, capacity for work, and strong initiation capabilities best represented the resilient qualities of these young children.

Fantuzzo et al. (1996) have also made a connection between resilience and play. Out of their work which focused on the treatment of abused and neglected children, Fantuzzo et al. developed a resilient peer training system whose aim was to improve the social effectiveness of preschool children dealing with abuse and neglect. Using a developmental-ecological model, the resilient peer treatment intervention involved pairing withdrawn young children with their resilient peers in the natural classroom setting under the guidance of a parent assistant. Using a pre-test / post-test design, resilient and socially withdrawn children were rated by their teacher and observed to determine what type of play (i.e., ranging from non-play and solitary play to collaborative play) they were most frequently engaged in before and after the intervention. Fantuzzo et al. found that the resilient peer treatment resulted in a significant increase in interactive play and a decrease in solitary play for the socially withdrawn children. In discussing their study and considering future research directions, Fantuzzo et al. suggested that the study of the play tactics of resilient young children was an important area that warranted a closer examination.

Lieber (1993) compared the social pretend play of young children with and without disabilities. Although this study did not focus specifically on resilient children, it is important to consider as Lieber examined the behavioural tactics the children used to enter, initiate, maintain, and terminate social pretend play episodes. These four phases of social pretend play were outlined by Goncu (1987) and were used to study the tactics or negotiation strategies young children use in play.

The first phase, entering play or becoming a member of social pretend play, includes indirect strategies (e.g., nonverbal entries, variant of play behaviour), direct strategies (e.g., requesting access, questioning, suggesting a different activity), and disruptive strategies (e.g., physically disrupting play, claiming a toy from other child) (Goncu, 1987). Goncu states that the most effective way to enter a play group is for the child to approach a play episode, indirectly show interest in the play of the group, and then wait for the children to respond and give further opportunities for play negotiation. Within this negotiation process, it is also important that children are persistent in their entry attempts, as it may take several tries before they successfully enter the play group (Corsaro, 1979). Lieber (1993) found that the children with mild disabilities used more direct and disruptive strategies than their peers without disabilities.

The second phase of social pretend play, initiating play, involves the transition from group entry negotiations or non-pretend play to pretend play (Goncu, 1987). During this phase, children either start playing immediately (e.g., one child pretends to ring a door bell and waits for the other child to answer) or they discuss their roles first (e.g., one child says "I'm the mommy and you're the baby" to the other child). Goncu (1987) found that starting to play immediately was a more successful strategy. Lieber (1993) found that both children with and without disabilities started playing without discussing roles first.

The third phase of social pretend play, maintaining play, involves the planning and expansion of pretend play (Goncu, 1987). During this phase children either make announcements regarding what they want to play (e.g., "pretend we are going to the hospital") or they negotiate shared plans (e.g., children decide together what they are going to do). In order for play to be maintained, there needs to be a shared knowledge of the play episode and the theme of the play episode determines how long the dialogue will last. For example, episodes depicting something like a police arrest, which involves a lot

of physical activity, seem to have less dialogue than a pretend birthday party with family members (Corsaro, 1983). The success of pretend play at this point depends on how meaningful it is for all involved players and how much experience they have had with such an event (Goncu, 1987). Lieber (1993) found that both children with and without disabilities maintained play using dialogues that consisted of mainly one turn. Of the themes developed through these dialogues, most were functional (e.g., eating, cleaning, dressing up), some were relational (e.g., mom, baby), and only a few were occupational (e.g., police officer, teacher). Lieber found that only the children without disabilities used fantasy roles (e.g., dog, cat, tooth fairy).

The final phase of social pretend play, termination, has not been well studied, but strategies to leave include announcing that play is over, leaving play and returning later, or leaving play without returning (Lieber, 1993). Goncu (1987) states that less than one percent of young children's pretend play episodes end with a termination statement. Lieber (1993) found that the children with and without disabilities just stopped playing and left the area.

In studying these four phases of social pretend play, Goncu (1987) states that it is important to remember that not all pretend play episodes include all four phases. Additionally, all episodes may not evolve in this sequence - some phases may occur at the same time. And finally, some episodes end before they begin because of limited shared experiences among the children playing.

Research conducted thus far has found children with resilient behaviours to have high levels of play involvement, high levels of play initiation, high levels of interactive play, and they exhibit understandable play themes (Earls et al., 1986; Fantuzzo et al., 1996). After examining the studies linking resilient young children and play, it is clear that social pretend play is an effective means through which social competence can be studied, understood, and promoted in young children dealing with high levels of stress. Another important developmental area to promote in young children facing adverse circumstances is emotional competence. One way of learning more about emotional competence of young children is through understanding the perceived competence levels of resilient young children.

Resilience Research and Perceived Competence

In addition to the social competence that young children develop through play, healthy self-perceptions significantly influence their developmental growth (Garbarino et al., 1992; Saracho & Spodek, 1998). For young children who are dealing with high levels of stress that may lead to developmental damage, a healthy, realistic perception of their competencies may help these children cope more effectively (Rutter, 1987). When these children are able to cope with stressful circumstances, their sense of competency grows and this growth is likely to lead to continued success in dealing with difficult events and circumstances (Rutter, 1987). Some researchers feel that possessing a strong sense of competence is an essential characteristic of these resilient children (Cowen & Work, 1988; Hoyt-Meyers, 1993; Rutter, 1987). Even resilient adults who have reflected on their developmental path believe that perceived competence greatly influenced the effectiveness of their coping abilities and helped them overcome the adverse circumstances they faced (Werner and Smith, 1992).

In their study that compared grade four to six children who had experienced high levels of stress, the Rochester Child Resilience Project (RCRP), through the administration of the Perceived Competence Scale for Children, found that stress-resilient children had higher perceived competence scores in all domains (i.e., scholastic competence, social acceptance, behavioural conduct, and global self-worth) than their stress-affected peers (Cowen et al., 1990). Hoyt-Meyers (1993), in her study of second and third grade children who had experienced high levels of stress, also found that stress-resilient children rated themselves as more competent than their stress-affected peers.

It is important to note that the perceived competency scales assess *perceived* competencies and *perceived* levels of social acceptance and these findings are not to be confused with ratings of self-esteem and self-worth (Harter & Pike, 1984). Measuring the self-perceptions of young children is a very appropriate assessment as theory and research state that young children are not at a developmental level where they can make self-worth judgements until they are around eight years of age (Harter & Pike, 1984).

Research linking resilience and perceived competence in young children is limited, but the important role self-perceptions is believed to play in effectively coping with adverse circumstances and the overall development of young children is significant and is

therefore an important area that warrants more study (Cowen & Work, 1988; Hoyt-Meyers, 1993; Rutter, 1987). Additionally, Harter and Pike (1984) suggest that a domain-specific measure focused on determining which type of profile is associated with resilient and stress-affected young children would be useful as our understanding of these children evolves and interventions are developed to help these children overcome potential developmental damage.

Resilience Research in Canada

All of the previously mentioned resilience research was conducted in the United States and England. Within Canada, resilience research seems to be a relatively small field of study. At the Centre for Research in Applied Measurement and Evaluation (CRAME) in the Faculty of Education at the University of Alberta, Kysela and McDonald head the Child and Family Resiliency Research Program, a program that has developed out of decades of work in the field of early intervention (Kysela, McDonald, Drummond, & Alexander, 1996). Their work is based on the need to enhance resiliency in children who are at-risk for lifelong developmental disorders. Three intervention programs are being investigated: the Family-Centred Assessment and Intervention Planning Program; the Natural Teaching Strategies Intervention; and the Cooperative Family Learning Intervention.

Within Family-Centred Assessment and Intervention Planning, Kysela and his colleagues work together with families to develop a five-part description of the child's and family's strengths and potential needs. From this information, the researchers and families work together to plan ways of using their strengths and resources to meet their needs. The Natural Teaching Strategies Intervention (Kysela et al., 1996) focuses on teaching the parents of children with developmental disabilities how to use specific teaching strategies during naturally occurring points in the day to enhance their child's development. Finally, the Cooperative Family Learning Approach teaches families to have a positive attitude and see family situations as opportunities rather than stressors (Kysela et al., 1996). These programs have been built on resilience research findings as they utilize existing strengths and focus on developing stronger child-parent relationships (Cowen et al., 1995; Werner & Smith, 1992).

Also within Canada, Johnson (1997) has published a study looking at resilient at-risk youths in a Western-Canadian inner city. Johnson asked 26 teachers and 12 principals working in areas of low socioeconomic status to describe, in writing, their professional and personal experiences with resilient, at-risk students. From their responses, a range of compensatory factors were identified: student characteristics, human relationships, family factors, community factors, and school factors. This information led Johnson to develop a conceptual model of compensatory factors that influence at-risk student resiliency whereby educators can more clearly understand the interaction and influence between the range of compensatory factors.

At Carleton University, Shaffer (1994) investigated the developmental effects of child maltreatment variables that contribute to vulnerability and resiliency. She found that psychological maltreatment and neglect are the most detrimental stress factors to development as they co-exist with other forms of maltreatment and therefore intensify their effects. Shaffer also found that resilience is part of a complex interaction of many variables and it is more prevalent in younger children, girls, and individuals experiencing short-term risk circumstances. Shaffer concludes that the maintenance of resilience over time depends upon intelligence, stability of the care-taking environment, and the ability to seek and maintain social support.

Focus of Research

In reviewing the information gathered from a wide range of research on stress, resilience, and the play and perceived competence of young children, the limited amount of research focusing on the play tactics and perceived competence of resilient young children within Canada emerged. The play research of Earls et al. (1986) and Fantuzzo et al. (1996) have shown that the play behaviours of resilient young children include high play involvement, high levels of play initiation, and the development of understandable play themes. Further studies examining differences in the levels of stress young children experience, the resilient behaviours they exhibit, and the play skills they possess are needed as we try understand more about these young children. The self-perceptions of resilient young children, which are closely related to the social competencies of these children, are also an important area that warrants further exploration because most of the

research has focused on children over eight years of age (Hoyt-Meyers, 1993; Wyman et al., 1991). A study focusing on the play and perceived competence of resilient young children is important as it contributes to a growing body of research that is providing a more detailed understanding of the characteristics, play abilities, and self-perceptions that are closely linked to resilient outcomes in young children facing adverse circumstances.

The following research questions were posed to guide this study:

1) Identify the low and high stress children and the LS-SR, LS-SA, HS-SR, and HS-SA children. Were there any significant differences between the number of stressful life events and circumstances experienced by the different groups of children?
2) What was the socio-demographic information for the low and high stress children and the LS-SR, LS-SA, HS-SR, and HS-SA children and were there any significant differences between the groups?
3) What percentage of observed play time did the low and high stress children and the LS-SR, LS-SA, HS-SR, and HS-SA children spend engaged in social exchanges with peers, social exchanges with a teacher, social pretend play, and other play and were there any significant differences between the groups?
4) What were the specific play tactics and outcomes of the low and high stress children and the LS-SR, LS-SA, HS-SR, and HS-SA children as they: (a) entered ongoing social pretend play episodes; (b) initiated social pretend play; (c) maintained social pretend play; and (d) terminated social pretend play episodes?
5) Were there any salient patterns in the play interview responses dealing with the children's attitudes towards play and the tactics they use when playing and were there any differences between the answers of the low and high stress children and the LS-SR, LS-SA, HS-SR, and HS-SA children?
6) What were the perceived competencies of the low and high stress children and the LS-SR, LS-SA, HS-SR, and HS-SA children as measured with the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (Harter & Pike, 1984) and were there any significant differences between the groups?

Hypotheses

The following hypotheses were identified in relation to the previously listed research questions. It was predicted that the low stress children and the high stress, stress-resilient children would spend more of their observed play engaged in social pretend play, use more effective play tactics to enter, initiate, sustain, and end play episodes, and describe more effective play tactics than their stress-affected peers. It was hypothesized that the low stress children would exhibit successful play tactics because they were free of the risk factors associated with high levels of stress such as adjustment problems, most noticeably in the area of social understanding and social adjustment (Maginn, 1994). The prediction of successful play behaviours found in the stress-resilient children was based on earlier research that describes resilient young children as being more flexible and realistic (Werner, 1990), being more socially at ease and responsive (Garmezy, 1990), being more interactive with their peers and more involved in play activities (Earls et al., 1987; Werner, 1990), and having more communication and problem solving skills than their stress-affected peers (Bloom, 1996; Garmezy, 1991; Werner & Smith, 1992).

It was also predicted that the low stress children and the high stress, stress-resilient children would rate themselves as more competent than their stress-affected peers. This prediction is based on research that found children who had experienced high levels of stress had low self competence ratings (Maginn, 1994). Additionally, research from the Rochester Child Resilience Project found that stress-resilient children perceived themselves to be more competent than their stress-affected peers (Cowen et al., 1995; Hoyt-Meyers, 1993).

Summary

The review of information gathered from a wide range of research on stress, resilience, and the play and perceived competence of young children indicates that play tactics and perceived competence are age appropriate areas of development that will contribute to our greater understanding of resilient behaviours in young children. Additionally, understanding more about the effects of stress on the development of young children, the effective play tactics young children use during social pretend play, and the importance of healthy self-perceptions in young children offers the potential for

developing useful prevention and intervention programs, an area resilience research is moving towards.

CHAPTER THREE - METHODOLOGY

Objectives Addressed in the Research

The following research objectives were developed to answer the research questions relating to the specific play tactics and perceived competencies of the participating children.

1. Identify low and high stress children. Identify low stress, stress-resilient (LS-SR); low stress, stress-affected (LS-SA); high stress, stress-resilient (HS-SR); and high stress, stress-affected (HS-SA) children. Examine the life events and circumstances checklist (LEC) information for the different groups and look for any significant differences.
2. Examine the socio-demographic information of the participating children by using descriptive statistics. Compare the averaged socio-demographic items of the low and high stress children and the LS-SR, LS-SA, HS-SR, and HS-SA children to look for any significant differences between the groups.
3. Observe all of the participating children during free play experiences using running records and focus on two areas: (a) what percentage of observed play time the children spend engaged in social pretend play; and (b) the specific tactics the children use during social pretend play to enter, initiate, sustain, and end play episodes and the outcomes of these tactics (Lieber, 1993).
4. Use a semi-structured interview to talk with the participating children about their feelings regarding play and the specific tactics they use when playing.
5. Use content analysis to look for salient patterns in the play observation and interview data of the low and high stress children and the LS-SR, LS-SA, HS-SR, and HS-SA children. Then, comparatively analyze the observation and interview data of the different groups and look for any significant differences.
6. Use the cognitive competence, physical competence, and peer acceptance sub-scales of the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (Harter & Pike, 1984) to assess the self-perceptions of the low and high stress children and the LS-SR, LS-SA, HS-SR, and HS-SA children. Calculate the scores from the Pictorial Scale of Perceived Competence and Social Acceptance for

Young Children (Harter & Pike, 1984) and test the low and high stress children and the LS-SR, LS-SA, HS-SR, and HS-SA group averages for any significant differences.

Method

Participants and Group Classification Procedures

Ninety-two information letters with attached consent forms (see Appendix B) were sent to the parents of children attending two preschools in the Greater Victoria area. Sixty (65%) of the parents returned consent forms: 52 (57%) gave consent and eight (9%) withheld consent. The 52 parents who gave consent were then sent a package to complete that consisted of a socio-demographic questionnaire, a life events and circumstances checklist (LEC), and two adjustment measures (PCRS-R and Adapted PAR) to complete. Forty-two (46%) of the 52 parents completed the package and the teachers of these children were then asked to complete one adjustment measure (T-CRS) for each child. Of the 42 participating children, four were removed from the study because of their age: three were 39 months and one was 77 months. The 38 remaining children were the participants in this study. These participating children had a mean chronological age of 58 months and the range was from 46 months to 74 months. The median age was 60 months. Of the participating children, 13 were girls and 25 were boys. Thirty-five of the children were White, one child was Asian Canadian, one child was White / Black, and one child was White / First Nations.

Upon completion of the data collection from the observations and interviews, the 38 participating children were initially categorized into low or high stress groups and then they were further categorized into one of four categories using procedures adapted from Wyman et. al. (1991) and Hoyt-Meyers (1993) in work completed for the Rochester Child Resilience Project. Initially, the LEC checklists completed by the parents were used to classify the children as either low stress or high stress. This classification was determined by the number of stressful life events and circumstances (SLE-C) the children had experienced: 19 children had experienced three or fewer SLE-C and were classified as low stress and 19 children had experienced four or more SLE-C and were classified as high stress. This classification procedure is consistent with other resilience research (Luthar & Zigler, 1991; Werner & Smith, 1982).

After these initial stress classifications were made, an adapted version of the classification procedure used in the Rochester Child Resilience Project (Hoyt-Meyers, 1993; Wyman et al., 1991) was used to categorize the low stress and high stress children as stress-resilient or stress-affected. To assign the child into stress-resilient and stress-affected categories, the two adjustment measures completed by the parents (PCRS-R and Adapted PAR) and the one adjustment measure completed by the teachers (T-CRS) were used. To be classified as stress-resilient, the children had to have adjustment ratings in the upper half of all three of the measures. To be classified as stress-affected, the children had to have adjustment ratings in the lower half of all three of the measures. For those children who didn't have all three ratings fall into either the top half or bottom half, their total rating scores were tallied and the higher scoring children of this intermediate group were placed in the stress-resilient category and the lower scoring children of this intermediate group were placed in the stress-affected category.

The stress-resilient and stress-affected classification was completed for both the low stress and high stress groupings and resulted in four groups of children: 10 low stress, stress-resilient (LS-SR); 9 low stress, stress-affected (LS-SA); 10 high stress, stress-resilient (HS-SR); and 9 high stress, stress-affected (HS-SA) children.

Design

This study proceeded in three stages. In the first stage, parents and teachers completed measures rating levels of stress and adjustment for the participating children. In the second stage, the free play of the participating children was observed for two separate 15 minute sessions. During the final stage, the participating children were interviewed using a semi-structured interview format and they completed three subscales of the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (Harter & Pike, 1984).

Measures

In order to classify the participating children as having experienced low or high levels of stress and rating them as stress-resilient and stress-affected, the LEC checklist (Hoyt-Meyers, 1993) and the various child adjustment measures that follow were used. Werner (1990) has stated the need for research on the resilience of children to use

developmentally appropriate measures of competence as well as using "multiple criteria" to differentiate high and low competence groups (p.100). Considering this, both the parents and teachers of the participating children were asked to complete adjustment rating scales.

Socio-demographic Questionnaire.

Upon the return of consent forms, parents were asked to complete a socio-demographic questionnaire regarding their child and family (see Appendix D). This ten-item questionnaire asked demographic questions such as the child's age, the child's ethnic origin, the age of the parents, the income level of the parents (Centre for International Statistics, 1999) and the education level of the parents. Additionally, it asked for background information on factors in the child's life that may contribute to or detract from his/her potential resiliency such as the number of siblings he/she has and the amount of time the parents spent interacting with the child on a given day. Luthar (1993) states that these socio-demographic factors offer valuable information when constructing useful resilience research as they allow researchers to look for socio-demographic patterns in the participating stress-resilient and stress-affected children and link their findings to those of other researchers.

Life Events and Circumstances Checklist (LEC).

Parents were also asked to complete the LEC checklist (see Appendix E), which was developed to assess the amount of stress experienced by the person completing it, or in this case, by the parents completing it for their child (Cowen et al., 1995). This is an accepted measure that has been used in other resilience research to assess the number of stressful life events and circumstances that children have encountered within their lifetime (Cowen et al., 1990; Luthar & Zigler, 1991; Masten, Miliotis, Graham-Bermann, Ramirez, & Neemann, 1993; Werner & Smith, 1982; Wyman et al., 1991). The LEC included 32 items ranging from specific events (e.g. death of a close family member) to chronic problems (e.g. drug or alcohol problem of close family member) (Wyman et al., 1991). There were also two blank spaces at the end of the scale for parents to add stressors that have been experienced by their children, but were not listed. The LEC included only uncontrollable life events (e.g., had little food to eat) to prevent any confounds between

measures of stress (e.g., parent separation or divorce) and outcomes of emotional stress (e.g., problems in school arising from the separation or divorce) (Cowen et al., 1990; Luthar et al., 1993).

The child's score on this checklist was the total number of events that the parents indicated that the child had experienced (Wyman et al., 1993). Children who had experienced four or more of these events were identified as encountering high levels of stress and children who had experienced three or fewer stressors were identified as having low levels of stress (Cowen et al., 1990; Werner & Smith, 1982). The LEC can be divided into five empirically derived factors: family turmoil, poverty, violence, family separation, and illness/death (Hoyt-Meyers, 1993; Work et al., 1990). Subscales based on these five empirically derived factors can also be scored.

Parent Child Rating Scale - Revised (PCRS-R).

Parents were asked to complete the 18 item PCRS-R (see Appendix F), which was developed to assess parental views of their child's adjustment (Hoyt-Meyers, 1993). Parents were asked to describe their child's competencies (e.g., makes friends easily) and problems (e.g., has difficulty sitting still) using a five-point scale (i.e., 1 = strongly disagree, 5 = strongly agree) to indicate how well each item described their child.

The PCRS-R has four subscales: acting out (5 items); frustration tolerance (4 items); shy-anxious (5 items); and peer sociability (4 items). These subscales are based on factorially derived subscales of the Teacher-Child Rating Scale (Hoyt-Meyers, 1993). After reverse-keying negative items, total and subscale scores can be tallied. Higher scores on this measure indicate better developmental adjustment and fewer problem behaviours. The PCRS-R was found to have an alpha of .75 (Hoyt-Meyers, 1993). A sixteen week correlation coefficient calculated for this study was .76 at the .01 level.

Adapted Version of Parent Adjustment Rating (Adapted PAR).

Parents or guardians were also asked to complete the Adapted PAR (see Appendix G), which was developed to assess parental views of their child's present adjustment (Cowen et al., 1990). Parents were asked to rate the level of competency displayed by their child using the five-point scale (i.e., 1 = does not describe at all, 5 = describes completely) with high scores indicating good adjustment. The five items originally

required parents to rate their child on the number of friends the child had, the child's likeability by others, the child's leadership qualities, the child's school performance, and the parents' satisfaction with their child's behaviour (Cowen et al., 1990). These items were adapted to be more developmentally appropriate for preschool children: (a) my child makes friends easily and has many friends; (b) my child is liked by other children his/her age; (c) my child has a positive sense of self worth; (d); my child understands what is taught in preschool and is doing well there; and (e) with little adult attention, my child behaves appropriately in most situations (Berk, 1994). A sixteen week correlation coefficient for this study was .61 at the .01 level.

Teacher-Child Rating Scale (T-CRS).

The preschool teachers were asked to complete the Teacher-Child Rating Scale (T-CRS) (See Appendix H), which is a two part 38-item measure that assesses the child's school behaviour problems and competencies (Hightower, Work, Cowen, Lotyczewski, Spinell, Guare, & Rohrbeck, 1986). The first part of the scale focuses on problem behaviours. It consists of three empirically derived factors that contain six items within each factor: (a) acting out; (b) shy-anxious; and (c) learning problems (Hoyt-Meyers, 1993). The teacher rated the 18 items of the first section using the five-point severity scale (i.e., 1= not a problem, 5 = very serious problem) (Cowen et al., 1995). High scores on Part One indicate more serious adjustment problems.

The second part of the scale focuses on classroom competencies. This part of the scale consists of four factored subscales with five items in each subscale: (a) frustration tolerance; (b) assertive social skills; (c) task orientation; and (d) peer sociability (Hoyt-Meyers, 1993). The child's teacher rated these 20 items using the five-point descriptive scale (i.e., 1 = describes not at all, 5 = describes very well) (Cowen et al., 1995). After reverse-keying the negative items, total and subscale scores can be tallied. High scores on Part Two indicate greater competence.

The T-CRS, when used as a verification measure in past resilience research, has successfully differentiated stress-resilient children from stress-affected children (Cowen et al., 1995). Subscale alphas for the T-CRS ranged from .85 to .95 with a median of .92 (Cowen et al., 1990). Ten to twenty week correlation coefficients were found to range from .66 to .84 with a median of .74 (Cowen et al., 1990).

For the purpose of this study, the T-CRS was given to three early childhood educators prior to the start of the study to ensure that the items were clear and understandable. The three early childhood educators found that this rating scale was generally clear and understandable, but suggested that two items were too vague (i.e., "learning academic subjects" and "has many friends"), so the two items were changed to be more detailed (i.e., "learning age appropriate pre-academic skills" and "has three or more friends").

Pictorial Scale of Perceived Competence and Social Acceptance for Young Children.

The primary researcher individually completed this scale with each of the participating children. The preschool and kindergarten version of the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children is a pictorial scale that measures the perceived competence and social acceptance of young children who are 4 to 5 years of age (Harter & Pike, 1984). The scale is comprised of two factors within which there are two subscales: (a) general competence which is defined by the cognitive competence and physical competence subscales; and (b) social acceptance which is defined by the peer acceptance and maternal acceptance subscales. For the purpose of this study, only the cognitive competence, physical competence, and peer acceptance subscales were used (see Appendix M).

After evaluating this scale, the language used to administer it to the children was changed slightly to reflect a more positive description of the abilities of the pictured children. Phrases such as "I'm good at... / I'm bad at..." were changed to "It is easy for me to... / It is hard for me to...". These changes affected the descriptions of the pictured child's abilities, but they did not affect the meaning of their abilities. Prior to using the scale with the participating children, the original and adapted versions of the scale were completed with a 53 month old child. There were no differences between the child's scores on the two versions of the scale.

The adapted scale consisted of 18 picture plates with one set for boys and one set for girls. These pictures were used to help each student make judgments about his / her abilities with examples such as running fast, having friends on the playground, and being good at numbers. Each item was scored on a four-point scale with four indicating the

most competent or accepted rating and one indicating the least competent or accepted rating. Scores were totalled across the six items in each subscale. The averaged scores of the three subscales provided the child's profile of perceived competence and acceptance.

Harter and Pike (1984) found this scale to have acceptable psychometric properties. When assessed through indexes of internal consistency, the reliability of the entire scale was found to be acceptable with a coefficient alpha in the mid to high eighties. The construct validity, the underlying traits reflected in scores on this scale, was also found to be acceptable. The construct validity was assessed by evaluating the children's judgements and behaviours in comparison to their scale scores: the rationales behind the children's self-perceptions were understandable; those children held back in school had significantly lower cognitive scores; children that were new to the school had lower social scores; and children who were preterm babies (a condition associated with delays in gross motor development) had lower physical scores.

Procedure

Initially, the study proposal was submitted to the Ethics Committee of the University of Victoria for ethics approval. After meeting the required ethical guidelines, the BC Ministry of Children and Families was contacted and a list of the licensed preschools and childcare centres in the Greater Victoria area was obtained. From this list, childcare centres and preschools providing services for more than 20 students were selected as potential research sites. The directors of ten preschools and child care centres were then sent a letter of introduction (see Appendix A) within which the researcher stated that she would call the facilities in one week to see if they had any questions and ask if they would be interested in participating. Within four days of sending the letters, two preschool directors called the researcher to say that they would be interested in having their preschool participate in the study. Informal meetings were arranged with the directors of both preschools to go through the research protocol and the parent measures and teacher measures.

In reviewing the research procedure and measures, the directors at both preschools voiced certain concerns about two of the adjustment measures and one component of the observation procedure. In reviewing the adjustment measures, both directors had

concerns about the Teacher Global Rating Scale (TGR) and The Pictorial Scale of Perceived Competence and Peer Acceptance for Young Children. The directors did not wish to use the TGR, a scale which requires teachers to rate a child's school adjustment by comparing them to their same sex classmates and placing them in the top, middle, or bottom third of this group (Hoyt-Meyers, 1993). Their rationale was that neither preschool used an evaluation procedure in which children were assessed in relation to the other children in their class. After consultation with her university supervisor, the researcher removed this measure from the study because the TCR-S could still be used to rate each child's adjustment. The two directors also expressed concern regarding the language used in the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (Harter & Pike, 1984). These concerns resulted in the wording change to this scale as described earlier.

In reviewing the observation procedures, both of the directors were concerned about having a graduate student other than the primary researcher complete the observations. They both said they were comfortable with the primary researcher and her behaviour within their preschools and they also felt that additional observers would disrupt the classes. Since comfort levels and preventing class disruptions were considered to be very important by the primary researcher and her university supervisor, research precautions were established to keep observer bias to a minimum: not calculating the number of SLE-C experienced until after the data collection was complete; not determining the stress-resilient or stress-affected status of the children until after the data collection was complete; and completing inter-observer reliability ratings that showed acceptable levels during the data collection.

Following these changes to the research procedure, the directors gave permission for the study to be conducted in their preschools. Through a letter, the other childcare centres and preschools were thanked for their consideration and told their services would not be needed.

The two participating preschools were privately owned and operated. The first preschool had a licensed capacity of 20 children – 20 morning children and 20 afternoon children. This preschool was situated in a middle socioeconomic status neighbourhood. The second preschool was licensed for general daycare, a morning and afternoon

preschool program, and a kindergarten program to a maximum of 45 children. The second preschool was situated in an upper middle socioeconomic status neighbourhood. Both preschool programs had a child-centred approach that promoted the whole development of the child through a variety of learning opportunities (social development through dramatic play, fine and gross motor development, aesthetic development, cognitive development). Both preschools provided the children with indoor and outdoor learning experiences. Additionally, both programs included young children with special needs.

After permission had been granted by the directors of the preschools, information letters and consent forms were sent to the parents of the children attending the two participating preschools (see Appendix B). Within the letter, the general intent of the study and the methods of ensuring complete confidentiality throughout the study were discussed with the hope that this assurance made the parents more comfortable and willing to give permission for their children to participate in the study. Also in this letter, a five-dollar honorarium was offered to each parent who completed all of the measures (i.e., socio-demographic questionnaire, LEC checklist, and the two adjustment measures (PCRS - R and Adapted PAR)). Additionally, all participating parents were offered a research summary at the end of the study if they were interested. In concluding this letter, both the researcher's and the supervisor's phone numbers and e-mail addresses were listed for parents who had questions or concerns. Only two parents called to talk about the study and ask more specific questions about the research procedure. Ninety-two introduction letters were sent to the parents in the two preschools. Of these 92 letters, 60 parents responded: 52 giving consent and eight withholding consent.

After consent forms were returned to the preschool, each child was assigned an identification number. This identification number was used on all subsequent measures including the socio-demographic questionnaire, the LEC checklist, the PCRS-R and Adapted PAR, the T-CRS, the running records from the observations, the interview transcripts, and the scores for the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children.

After being assigned an identification number, the parents of the participating children were sent the socio-demographic questionnaire, the LEC, the PCRS-R, and the Adapted PAR measures to complete. The researcher included her phone number and e-mail address so any parents who had questions could contact her easily, although none of the parents contacted her. Upon completion, parents were asked to return the measures in the provided envelope (sealed) to the preschool. Once the measures were returned, the preschool teachers of the participating children were asked to complete the T-CRS measure. An honorarium of two dollars was offered for each measure completed by the teachers.

All of the completed questionnaires and adjustment measures were collected from the parents and teachers and remained sealed until the observation and interview data collection was complete. This was done to minimize the possibility of observer and interviewer contamination (Gall, Borg, & Gall, 1996) as the primary researcher did not know whether the participating children were considered to be low or high stress, LS-SR, LS-SA, HS-SR, or HS-SA.

Sixteen weeks after the data collection was completed, participating parents were contacted through a letter and asked to complete the PCRS-R and Adapted PAR again. A sub-sample of nine (24%) parents completed the measures for a second time. This test-retest correlation measure allowed the researcher to calculate the reliability of the parent assessments (Masten et al., 1993). The correlation coefficient for the PCR-S was .76 at the .01 level and the correlation coefficient for the Adapted PAR was .61 at the .01 level.

Observations.

After receiving the completed parent and teacher measures, the researcher arranged observation times with the preschool teachers that kept disruptions within the preschool programs to a minimum (Jorgenson, 1989), but that also allowed the researcher to observe the children during free play times. Observations were chosen as an important means of collecting data because children have been found to exhibit their highest levels of competence when they are intrinsically motivated in their play (Vygotsky, 1966). Because the directors of the two preschools were not comfortable with other graduate students completing the observations, the primary researcher did the observations and a fellow graduate student came in to do inter-observer reliability checks.

The observation procedure established by Lieber (1993) to study the play strategies used by children with and without disabilities during social pretend play was adapted for this study. So with the goal of the observations being to gather descriptive behavioural data, the primary researcher assumed the role of an outside observer (Gall et al., 1996). In order to be perceived as non-threatening and establish an unnoticeable presence, which minimizes subject reactivity (Fine & Sandstrom, 1988), the researcher spent some initial time in the classrooms prior to data collection. After the children were comfortable with her presence, the primary researcher started the data collection. The primary researcher observed each child for two 15-minute sessions. The researcher followed a master list of the child identification numbers to determine who to observe and in what order. If one of the participating children was away, the researcher would skip that child and continue down the list. The researcher continued to go through the list until each child has been observed for a total of two 15-minute observations.

Observations took place during free play times in the classroom and on the playground. The primary researcher observed each child wherever he/she was playing: inside (e.g., housekeeping area, block area, manipulative area) or outside (e.g., sand area, climber, boat). Additionally, the researcher moved around the classroom or the playground as the child did.

During the observations, running records were used to write brief, continuous descriptions in a narrative style (Administration for Children, Youth, and Families, 1995; Lieber, 1993). Inter-observer reliability checks were completed during the observation data collection by having a fellow graduate student observe eight children during free play following the same narrative style as the primary researcher. These reliability checks were used to test for observer consistency and prevent observer drift during the collection of the running records (Gall et al., 1996; Jones, 1985). The inter-observer reliability checks were calculated using the point-by-point agreement formula: agreements ÷ (agreements + disagreements) x 100 (Lieber, 1993). Of the eight observations completed by both the primary researcher and the other graduate student, four were completed during indoor free play and four were completed during outside free play. The indoor agreements ranged from 76% to 89% with an average of 84%. The outdoor agreements ranged from 72% to

88% with an average of 79%. These reliability checks were found to have acceptable agreement levels (Jones, 1985).

Interviews.

After the observations were completed, the researcher read the script for inviting the children to participate to those children whose parents had given consent (see Appendix C). All but two of the 38 children agreed to participate, so the researcher spent approximately 5 to 10 minutes interviewing each participating child about his/her attitude towards play and the tactics he/she used when playing (see Appendix L). Questions about play tactics were based on the research of strategies used by children during the stages of social pretend play (i.e., entry, initiation, maintenance, and termination) (Goncu, 1987; Lieber, 1993). The researcher used a semi-structured interviewing approach, with some flexibility to reword or explain the open-ended questions if any of the children became confused (Gall et al., 1996). Each child's responses were transcribed during the interview.

Two pilot interviews were completed initially to alert the researcher to any potential communication problems, motivation issues, or any other clues that would illustrate the need to rephrase questions (Gall et al, 1996). No modifications were made to questions one through seven as the children did not have any trouble understanding them and the answers were clear. There was some confusion regarding the last question, "What do you have to do to be good at playing?", but it was kept in the interview to see if any patterns would emerge in the children's responses.

The Pictorial Scale of Perceived Competence and Social Acceptance for Young Children.

After the interviews were completed, the children were asked to complete the Pictorial Scale of Perceived Competence and Social Acceptance (Harter & Pike, 1984) with the researcher. Using the cognitive competence, physical competence, and peer acceptance subscales, the researcher followed the established procedure for asking the participating children the questions while showing them the 18 corresponding pictures. Their responses were marked on the adapted scoring sheet (see Appendix M) where subscale scores and overall scores were tallied.

Method of Analysis

Of the data that were collected, the life events and circumstances information, the socio-demographic information, the observation data, and the scores for the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (Harter & Pike, 1984) were analyzed quantitatively using the Statistical Product for Service Solutions database (Version, 9.0) (SPSS, Inc., 1999). Portions of the observation data and all of the interview data were analyzed by looking for salient themes using content analysis.

Life Events and Circumstances Information and Group Classification.

Initially, the LEC checklists were assessed to determine which children were living with high levels of stress and which children were living with low levels of stress. The assessment was completed by tallying the total number of stressful life events and circumstances experienced by each child (Wyman et al., 1991). Children who had experienced three or fewer stressful life events or circumstances were considered to be living with low levels of stress and children who had encountered four or more stressful life events were regarded as living with high levels of stress (Cowen et al., 1990; Werner & Smith, 1982).

After the number of stressful life events and circumstances experienced was determined for each child, an adapted version of the classification procedure used in the Rochester Child Resilience Project (RCRP) (Hoyt-Meyers, 1993; Wyman et al., 1991) was used to categorize the low stress and high stress children as stress-resilient or stress-affected. The RCRP classification system categorized stress-resilient children as those children who were in the top third in at least two of the three adjustment measures used (i.e., PCR-S, PAR, and TGR) and the middle third of one. Stress-affected children were rated in the lower third of at least two of the three measures and the middle third of the third measure. The TCR-S was used to verify this classification.

The RCRP procedure was adapted in two ways for this study: (1) instead of only using highly stressed children, this study also used low stress children to act as a comparison group; (2) the TGR was not used as the preschool directors were not comfortable with it. As a result, the TCR-S was used to classify the children as stress-

resilient or stress-affected instead of as a verification measure. For this study, assigning the children into stress-resilient and stress-affected categories involved the two adjustment measures completed by the parents (PCRS-R and Adapted PAR) and the one adjustment measure completed by the teachers (T-CRS). To be classified as stress-resilient, the children had to have adjustment ratings in the upper half of all three of the measures. And to be classified as stress-affected, the children had to have adjustment ratings in the lower half of all three of the measures. For those children who didn't have all three ratings fall into either the top half or bottom half of the scores, their total rating scores were tallied and the highest scoring children of this intermediate group were placed in the stress-resilient category and the lower scoring children of this intermediate group were placed in the stress-affected category.

After group classifications were determined, descriptive statistics (i.e., mean and SD) were calculated to determine the average number of stressful life events and circumstances (SLE-Cs) experienced by the low and high stress children and the LS-SR, LS-SA, HS-SR, and HS-SA groups of children. Statistical tests (t-tests and one-way ANOVAs) were also used to determine if there were any significant differences between the number of SLE-Cs experienced by the different groups of children. Following this, two chi-square analysis of association tests were used to see if there were any associations between the low and high stress children and the five LEC factors (i.e., family turmoil, poverty, violence, family separation, and illness / death) and the four groups of children (LS-SR, LS-SA, HS-SR, and HS-SA) and the five LEC factors.

Socio-demographic Information.

Initially, the low and high stress children and the LS-SR, LS-SA, HS-SR, and HS-SA groups of children were tested using t-tests and one-way ANOVAs to see if they were demographically matched based on age, sex, and ethnicity. Descriptive statistics were then calculated using the information obtained in the Socio-demographic Questionnaire (Appendix D). Following these calculations, the remaining information for the different groups were tested for significant differences using t-tests and one-way ANOVAs.

Observations.

Following the collection of the observation data, the running records were coded using established procedures employed in other play research (Goncu, 1987; Goncu, 1989; Lieber, 1993). By using these established and therefore explicitly stated categories for the structural components of the observed play, the stages of social exchange within the observed play, and the tactics used within each stage of the observed play, this study had a more systematic, replicable, and reliable means of coding and analyzing the collected data (Jones, 1985). Clearly defining these behaviours also ensured that the observations were not dependent on the specific characteristics or interests of the coder (Gall et al., 1996).

The first stage of coding the running records involved classifying the play observations into one of the four possible structural components of play: (1) social exchanges with peers (exchanges that did not include social pretend play); (2) social exchanges with teachers; (3) episodes of social pretend play; and (4) and other play (including functional, constructive, or dramatic play that did not include social exchanges with other children) (see Appendix I) (Lieber, 1993). The first category, social exchanges, was defined as beginning "... when the target child joined or was joined by another child in play. The episode terminated when the target child left the play area or was left alone in the play area" (Lieber, 1993, p. 151-52). To expand on this definition, the child joined or was joined when verbal exchanges took place. The second category, social exchanges with teachers, involved dialogue with teachers. The third category, social pretend play, was defined as social exchanges that have non-literal or symbolic material integrated into peer interactions (Howes & Unger, 1989). This element of fantasy was communicated to peers in phrases such as "Let's pretend ..." and "I'll be the teacher and you be the student". The fourth category, other play, included all types of play that did not involve social exchanges (Lieber, 1993). The amount of time the child was engaged in each of these four types of play was also recorded. A repeated measures ANOVA was then used to determine if there were any significant differences between the proportion of time the low and high stress groups and the LS-SR, LS-SA, HS-SR, and HS-SA groups of children spent in the four categories of play. Additionally, a t-test and a one-way ANOVA was used to calculate any significant differences in the duration the different groups of children spent engaged in episodes of social pretend play.

Once episodes of social pretend play were identified, a modified version of Goncu's framework defining the stages of social exchange (i.e., entry, initiation, maintenance, and termination) and the tactics found in each stage was used to categorize the specific play tactics used by the participating children during social pretend play (see Appendix J) (Lieber, 1993). Because of the small number of tactics identified in each stage of the social pretend play episodes, the data was analyzed qualitatively rather than quantitatively using content analysis. This change from quantitative to qualitative analyses is consistent the procedure Lieber (1993) followed.

In the first stage of the social exchange within social pretend play, there were three categories of entry tactics: (1) indirect strategies which include: nonverbal entry, variation of a behaviour, offering of an object, making a comment, and other; (2) direct strategies which include: a request for access, questioning, greeting, suggesting another activity, reference to adult authority, and other; and (3) disruptive strategies which include: disruptive entry, a claim on an area or object, and other. The second stage of the social exchange within social pretend play consisted of two initiation approaches: (1) starting to play; and (2) discussion of role before enactment. The third stage of the social exchange within social pretend play, known as maintenance, involved recording the dialogue used during the play episode and counting the number of turns taken by the children. The dialogues were then examined to see if the children exchanged general statements about the play or if they were able to move to the high communication level of sharing personal experiences and negotiating an agreed upon play plan (Goncu, 1987). Lastly, the theme of the social pretend play was examined (i.e., functional play and relational play – family roles, occupational roles, and fantasy roles). The fourth stage of the social exchange within social pretend play included five termination tactics: (1) verbal description; (2) ritual farewell; (3) unmarked exit with later return; (4) unmarked exit without return; and (5) other.

The coded observations were then divided into the low and high stress groups and the LS-SR, LS-SA, HS-SR, and HS-SA groups. From here, patterns of the play tactics used in the four stages of the social exchange within social pretend play episodes were identified for the different groups of children and compared to look for any noticeable differences between the groups.

The outcomes of the specific play tactics used were also coded. They were coded at all four stages according to the following categories: (1) positive outcomes (e.g., sustained positive play); (2) negative outcomes (e.g., play is disrupted); and (3) no effects (e.g., the situation remains unchanged) (see Appendix K).

Prior to calculating the inter-rater reliability for the coding of these categories, a second coder was trained by first learning to identify the structural components of play into social exchange episodes with peers or teachers, episodes of social pretend play, and other types of play. The second coder then learned the coding categories for the stages of social pretend play (entry, initiation, maintenance, and termination) and the play tactics used in each stage, as well as the categories for coding the outcomes of the tactics used. After becoming familiar with the system, the criterion coder (the primary researcher) and the second coder used the coding categories until they were able to code with minimal error (approximately 80%) (Jones, 1985). Having the second coder remain relatively naive to the purpose of this study kept rater bias and redefinition of observational variables to a minimum during this process (Gall et al., 1996).

Inter-rater agreement was completed for 25% of the running records (19 records) which were randomly selected (Gall et al., 1996; Jones, 1985; Lieber, 1993). Inter-rater agreement was calculated for the coding using the point-by-point agreement formula: agreements ÷ (agreements + disagreements) x 100 (Lieber, 1993). The inter-rater reliability agreements were as follows:

1) type of play = 89% (76% to 100%)
2) entry into play = 84% (75% to 100%)
3) play initiation = 95% (80% to 100%)
4) turns in play dialogue (maintenance) = 89% (60% to 100%)
5) play termination = 84% (50% to 100%)
6) outcomes = 89% (60% to 100%)

Interviews.

The interview transcripts were analyzed using content analysis to develop descriptive categories. Content analysis allowed for an objective and systematic description of the interview data (Jones, 1985). Using this method of analysis, the researcher read through the interview transcripts and identified salient categories for each

of the eight questions (Gall et al., 1996). Following this, a second coder identified salient themes for each of the eight questions independent of the researcher. Inter-rater agreement was calculated for the coding using the point-by-point agreement formula: agreements / (agreements + disagreements) x 100 (Lieber, 1993). The calculated inter-rater agreement for the question categories was calculated as acceptable for seven out of the eight questions: point-by-point agreement was 100% for the seven acceptable question categories. Acceptable inter-rater agreement levels need to be 80% or above (Gall et al., 1996, Jones, 1985), so for the one question category that was below this, the researcher and second coder identified points of ambiguity within the classification system and clarified them (Gall et al., 1996). After recategorizing the answers for this question, the inter-rater agreement was found to be acceptable at 100%.

Once the categorical classification system was established for the interview questions, the second coder coded 25% of the responses (10 responses) for each question into the established categories. Again, inter-rater agreement was calculated for the coding using the point-by-point agreement formula: agreements / (agreements + disagreements) x 100 (Lieber, 1993). With acceptable inter-rater agreement levels being 80% or higher (Gall et al., 1996; Jones, 1985), the item agreements were found to be acceptable with scores that ranged from 92% to 100% with an average of 99%.

Once responses were classified into categories, the researcher looked for any salient patterns within the responses of the low and high stress children and the low stress, stress-resilient (LS-SR); low stress, stress-affected (LS-SA); high stress, stress-resilient (HS-SR); and high stress, stress-affected (HS-SA) groups of children. Salient patterns were then identified, compared to look for any group differences, and cautiously interpreted because of the small number of participating children.

The Pictorial Scale of Perceived Competence and Social Acceptance for Young Children.

Once the cognitive competence, physical competence, and peer acceptance subscales of the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (Harter & Pike, 1984) were completed, the scores for each child were calculated for each of the three subscales and the three subscales were then tallied for an overall score. These averaged scores provided a profile of each child's rating of perceived

competence and acceptance. Following the completion of each child's individual scores, the scores for the low and high stress children and the LS-SR, LS-SA, HS-SR, and HS-SA groups were tallied and compared for any significant differences using t-tests and one-way ANOVAs.

CHAPTER FOUR - RESULTS

Introduction

Results of the data analysis that answer the six research objectives of this study are presented in the following five sections: (a) life events and circumstances information and group classification; (b) socio-demographic information; (c) observations (i.e., structural components of play, specific tactics used in each stage of social pretend play, outcomes of tactics used); (d) interviews; and (e) the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (Harter & Pike, 1984).

Life Events and Circumstances Information and Group Classification

The stress-resilient and stress-affected classification was completed for both the low stress and high stress groupings following procedures similar to those outlined in the Rochester Child Resilience Project (Wyman et al., 1991). The initial classification procedures resulted in two groups: 19 low stress young children and 19 high stress young children. After using the adjustment measures, the groups were further classified into four groups of children: 10 low stress, stress-resilient (LS-SR); 9 low stress, stress-affected (LS-SA); 10 high stress, stress-resilient (HS-SR); and 9 high stress, stress-affected (HS-SA). Descriptive statistics for the adjustment measure scores of the LS-SR, LS-SA, HS-SR, and HS-SA groupings of children can be found in Table 1.

Table 1.
Adjustment Measure Scores for LS-SR, LS-SA, HS-SR, and HS-SA Groupings

	Parent-Child Rating Scale (Revised)		Adapted Parent Adjustment Rating		Teacher-Child Rating Scale (Revised)	
	Mean	SD	Mean	SD	Mean	SD
LS-SR (n = 10)	77.4	6.5	23.5	1.52	158.4	7.2
LS-SA (n = 9)	62.1	4.5	18.7	1.41	118.6	20.9
HS-SR (n = 10)	73	5.1	22.4	1.58	159.8	11.8
HS-SA (n = 9)	59.9	6.1	18.9	2.15	124.2	18.5

The mean number of stressful life events and circumstances (SLE-C) reported by the parents of the participating children in this study was 3.9 (SD = 2.71, range = 1-13).

The mean number of SLE-C experienced by the low stress children was 1.9 (SD = .29, range = 1 - 3) and the mean number of SLE-C experienced by the high stress children was 6 (SD = 2.26, range = 4 - 13). The mean number of SLE-C experienced by the four groups of children were also calculated (see Table 2).

In comparing the SLE-C scores for the different groups, a two tailed *t*-test was run between the low and high stress groups and a significant difference was found between the number of SLE-C experienced by the two groups (t (18) = 8.71; $p < .0001$). A one-way ANOVA with post hoc Scheffe tests were run and significant differences were found between the low stress groups (LS-SR, LS-SA) and the high stress groups (HS-SR, HS-SA) (F (3, 37) = 19.10; $p < .05$).

Table 2.
Mean Number of SLE-C Experienced by LS-SR, LS-SA, HS-SR, and HS-SR Groups

	Low stress, stress-resilient (n = 10)	Low stress, stress-affected (n = 9)	High stress, stress-resilient (n = 10)	High stress, stress-affected (n = 9)
Mean	1.7	2	5.5	6.6
SD	.95	.87	1.9	2.6
Range	1 – 3	1 – 3	4 – 10	4 – 13

Note. n = number of children classified into each group

Previous research using the SLE-C scores identified five factors through factor analysis: (a) family turmoil (8 items on the LEC) (e.g., our child has been upset by family arguments); (b) poverty (7 items) (e.g., our family has had serious financial problems); (c) family separation (6 items) (e.g., our family is known to social services); (d) violence (5 items) (e.g., our child has been upset with neighbourhood violence); and (e) illness/death (6 items) (e.g., close relative died) (Work et al., 1990). Table 3 illustrates how the SLE-Cs for the low and high stress groups and the LS-SR, LS-SA, HS-SR, and HS-SA groups were distributed within the five SLE-C factors.

A chi-square analysis of association was run to look for an association between the low and high stress groups and the five different SLE-C factors. Results indicated an association between the low and high stress groups and the SLE-C factor of family separation ($x^2 = 7.59$; $p < .02$). An association was also found between the low and high stress groups and the SLE-C factor of illness/death ($x^2 = 7.54$; $p < .04$). A chi-square

analysis of association was also run to look for an association between the four groups of children (LS-SR, LS-SA, HS-SR, and HS-SA) and the five different SLE-C factors. Results indicated an association between the four groups of children and the SLE-C factor of family separation ($x^2 = 10.82$; $p < .05$), but this result is limited by the small number of SLE-Cs experienced within the four groups.

Table 3.
Distribution of Stressful Life Events and Circumstances (SLE-C) Experienced

	Low Stress n = 35		LS-SR n = 17		LS-SA n = 18		High Stress n = 114		HS-SR n = 55		HS-SA n = 59	
LEC Factors	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Family Turmoil	4	11%	0	-	4	22%	31	27%	8	15%	23	39%
Poverty	5	14%	4	24%	1	6%	13	11%	7	13%	6	10%
Family Separation	13	37%	8	47%	5	28%	35	31%	19	35%	16	27%
Violence	1	3%	0	-	1	6%	6	5%	3	5%	3	5%
Illness / Death	12	34%	5	29%	7	39%	29	25%	18	33%	11	19%

Note. n = total number of SLE-Cs experienced
Freq. = number of SLE-Cs experienced per factor

Socio-demographic Information

The 38 participating children had a mean chronological age of 58 months with a range from 46 months to 74 months. The median age was 60 months. Of the participating children, 13 were girls and 25 were boys, which was representative of the overall higher number of boys enrolled in the two preschool programs. Thirty-five of the children were White, one child was Asian Canadian, one child was White / Black, and one child was White / First Nations. This ethnic distribution was also representative of the child population in the two preschool programs.

The socio-demographic information for the low and high stress groups and the LS-SR, LS-SA, HS-SR, and HS-SA groups of children was compiled (see Table 4). Using the age, sex, ethnicity, number of parents in the home, and income level information, t-

tests and one-way ANOVAs were run to determine that the low stress and high stress as well as the LS-SR, LS-SA, HS-SR, and HS-SA groups of children were demographically matched.

Table 4.
Descriptive Statistics for Low stress, LS-SR, LS-SA, High Stress, HS-SR, and HS-SA Groups

Demographic Information	Low Stress n = 19	LS-SR n = 10	LS-SA n = 9	High Stress n = 19	HS-SR n = 10	HS-SA n = 9
Chronological Age	60.5	62.8	58	58.8	59.9	57.6
M(in months)	7	6.3	7.2	4.7	5	4.2
SD	46 – 74	53 – 74	46 – 66	49 - 66	51 – 66	49 – 63
Range						
Sex						
Female	5	3	2	8	5	3
Male	14	7	7	11	5	6
Birth order						
M	1.7	1.5	1.9	1.6	1.5	1.7
Range	1 – 3	1 – 3	1 – 3	1 - 3	1 – 3	1 – 3
No. of siblings						
M	1.05	1	1.1	1.05	1.2	0.9
Range	0 – 3	0 – 2	0 – 3	0 - 2	1 – 2	0 – 2
Mean Number of Adults in Home	2	2	2	1.95	2.1	1.8
Age of parents						
M (in years)	38.8	38.9	37.4	35.7 y	36.7	34.7
SD	4	4	4.3	5.5	5	6.1
Range	30 – 49	30 – 49	30 – 44	23 – 49	28 – 49	23 – 43
Education Level of Parents						
M (1 – 6)	4.4	4.4	3.9	4.2	4.6	3.4
Range	3 – 6	3 – 6	3 – 6	1 - 6	3 – 6	1 - 5
Income Level of Parents						
M (1 - 4)	4	4	4	3.6	3.6	3.7
Range	4	4	4	0 - 4	0 – 4	2 - 4
Time spent with child on allotted day	141	159	120	122	130	113.3
M (in min.)	112.6	138.6	77.6	74.9	84.5	66.7
SD	30-420	30-420	45–270	10-240	10–240	30–240
Range						

Note. n = number of children classified into each group

Statistical tests (t-tests and one-way ANOVAs) were run to determine if there were any significant differences in the categories of birth order, number of siblings, age of parents, education level of parents, and amount of time spent with child. No significant differences were found between the socio-demographic information of the low and high stress groups of children. Similarly, no significant differences were found between the LS-SR, LS-SA, HS-SR, and HS-SA groups of children.

Nature of Play: Observations

The results from the observation analysis are presented in five sections: structural components of play; social pretend play entry tactics and outcomes; social pretend play initiation tactics and outcomes; social pretend play maintenance tactics; and social pretend play termination tactics and outcomes. The structural components of play were quantitatively analyzed to look for significant differences. However, because of the small number of tactics identified in each stage of the social pretend play episodes, the data was analyzed qualitatively rather than quantitatively using content analysis. This change from quantitative to qualitative analyses is consistent the procedure Lieber (1993) followed.

Structural Components of Play

The running records collected during free play observations were coded according to the structural components of play the children were engaged in: (a) social exchanges with peers; (b) social exchanges with teachers; (c) episodes of social pretend play; and (d) other play (i.e., functional, constructive, or dramatic play that did not include social exchanges with other children) (Lieber, 1993). The two observation times were compiled and tabled: the amount of time spent in the four different types of play was averaged within each group of classified children, as was the percentage of total time the different groups of children spent in these different types of play (see Table 5).

Table 5.
Time Low Stress, LS-SR, LS-SA, High Stress, HS-SR, and HS-SA Groups Spent in the Different Types of Play

	Low Stress n = 19		LS-SR n = 10		LS-SA n = 9		High Stress n = 19		HS-SR n = 10		HS-SA n = 9	
Type of Play	avg. t	%	avg. t	%	avg. t	%	avg. t	%	avg. t	%	avg. t	%
Social exchange with peers.	950	53%	854	47%	1045	58%	774	43%	735	37%	812	45%
Social exchange with teacher.	19	1%	4.5	2%	33	2%	44	2%	47	3%	40	2%
Social pretend play.	248	14%	293	16%	202	11%	329	18%	435	25%	222	12%
Other play.	585	32%	650	36%	520	29%	656	37%	584	36%	727	40%

Note. n = number of classified children in each group
avg. t = averaged time spent in seconds
% = percentage of total group time in seconds

It is evident from Table 5 that all of the groups engaged in social exchanges with peers the most, out of the four types of play. Additionally, it is evident that the HS-SR group averaged the most time engaged in social pretend play (i.e., 25%), followed by the LS-SR group (i.e., 16%). T-tests were used to determine that there were no significant differences between the low and high stress groups in the proportion of time they spent engaged in the different types of play (social exchange with peers (t (12) = 1.71; $p < .21$); social exchange with teacher (t (37) = 1.8; $p < .19$); social pretend play (t (35) = .02; $p < .88$); other play (t (37) = .06; $p < .8$)). Test results of significant differences between the LS-SR, LS-SA, HS-SR, and HS-SA groups in the proportion of time they spent engaged in different types of play were noted listed as there was too much variation in the number of play episodes and the length of these observed episodes.

When social pretend play episodes did occur, they were relatively long when compared to other social pretend play research findings (Lieber, 1993). The average duration of social pretend episodes was calculated and tabled (see Table 6). A t-test indicated no difference between the low and high stress groups (t (34) = .16; $p < .88$). A

one-way ANOVA indicated no significant difference in the duration of social pretend play between the four groups of children (F (3, 65) = .117; $p < .95$).

Table 6.
Average Duration of Social Pretend Play for Low Stress, LS-SR, LS-SA, High Stress, HS-SR, and HS-SA Groups

Time in Social Pretend Play	Number of social pretend play episodes	M (in seconds)	SD	Range (in seconds)
Low Stress	27	185.41	182.52	15 – 750
LS-SR	16	195	191.2	30 – 750
LS-SA	11	166.4	221.9	15 – 660
High Stress	39	176.58	156.97	15 – 645
HS-SR	23	182.6	200.9	15 – 645
HS-SA	16	156.6	184	15 – 555

Note. n = number of social pretend episodes

With the social pretend play being the focus of the rest of the observation analysis, it is important to note how many children in each group engaged in social pretend play: ten of the 19 (53 %) low stress children; five of the ten (50%) LS-SR children; five of the nine (56%) LS-SA children; 14 of the 19 (74 %) high stress children; eight of the ten (80%) HS-SR children; and six of the nine (67%) HS-SA children. The running records for the social pretend play episodes of these children were used for the rest of the observation analysis.

Entry Tactics and Outcomes

The tactics for entering into a play group are the behaviours used by children to become members of a play group (Goncu, 1987). The entry tactics observed during this study were divided into three categories: indirect tactics; direct tactics; and disruptive strategies (see Appendix J for the specific tactics within each category). Not all of the children who engaged in social pretend used entry tactics: nine of the ten (90%) low stress children; all of the five (100%) LS-SR children; four (80%) of the five LS-SA children; 11 of the 14 (79%) high stress children; six (85%) of the eight HS-SR children; and five (83%) of the six HS-SA children.

The distribution of entry tactics used by the different groups of children is presented in Table 7. Overall, the low and high stress groups used direct tactics most frequently. It is evident that the LS-SR and HS-SA groups of children relied on both direct and indirect tactics to enter play whereas the LS-SA and HS-SR children used direct tactics more than indirect tactics.

Table 7.
Entry Tactics Used by Low Stress, LS-SR, LS-SA, High Stress, HS-SR, and HS-SA Groups

	Low Stress		LS-SR		LS-SA		High Stress		HS-SR		HS-SA	
Entry Tactic	n	%	n	%	n	%	n	%	n	%	n	%
Indirect Tactics	7	32%	6	43%	1	12.5%	10	34%	5	30%	5	42%
Direct Tactics	14	64%	8	57%	6	75%	19	66%	12	70%	7	58%
Disruptive Tactics	1	4%	-		1	12.5%	-		-		-	

Note. n = number of entry tactics used

To assess the quality of the tactics used to enter play, it is important to consider the outcomes of these tactics (Goncu, 1987). In examining the outcomes of the entry attempts used by the participating children, it was found that 77% of the tactics used by the LS-SR children were responded to positively and 23% of their tactics didn't get any response. Of the entry tactics used by the LS-SA children, 29% were successful, 57% received no response, and 14% got a negative response. In examining the entry tactics of the HS-SR children, 71% were responded to positively and 29% of the tactics received no response. Of the entry tactics used by the HS-SA children, 75% were successful and 25% received no response.

Initiation Tactics and Outcomes

The tactics used to initiate social pretend play are the behaviours used by children to change non-pretend play into social pretend play (Goncu, 1987). The tactics observed during this study included either starting to play (i.e., roles are immediately enacted) or play by regulation (i.e., discussing roles before engaging in social pretend play) (Lieber,

1993). All of the participating children who used entry tactics also used initiation tactics during their social pretend play episodes.

Overall, all of the groups of children used the initiation tactic of starting to play more than they used the tactic of play by regulation. The low stress group of children just started to play in 87% of the observed episodes of social pretend play. The LS-SR group of children used the starting to play tactic in 100% of the observations. The LS-SA group used the starting to play tactic in 60% of the observations and they discussed roles first in 40% of the observations. The high stress group of children just started to play in 62% of the observed episodes of social pretend play. The HS-SR group used the starting to play tactic in 59% of their observed social pretend play and they discussed roles first in 41% of the observed play. And the HS-SA children just started to play in 75% of the observations and discussed roles first in 25% of the observations.

In examining the responses to the initiation tactics used by the participating children, it was evident that both tactics led to positive outcomes as seen in episodes of sustained play dialogue. An example of a successful HS-SR play episode where roles were discussed first follows:

> HS-SR child: "I'll be tailspin – he has a tail. And L will be tails because she is cute."
> L: "I don't want to be cute."
> HS-SR child: "Pretend we were mad at you."
> L: "I don't want to be cute."
> HS-SR child: "Nobody is cute on Sonic."
> (HS-SR child starts running and L and the other child start following him)
> … this episode continues for a total of 420 seconds

Social Pretend Play Maintenance

The tactics used to maintain social pretend play are the behaviours children use to plan and expand play episodes (Goncu, 1987). The tactics observed during this study included the number of dialogue turns taken, the type of communication used in the play dialogue (e.g., statements, questions), and the themes expressed in the dialogue (Lieber, 1993).

Information about the number of turns of dialogue observed in the social pretend play episodes is listed in Table 8. The LS-SR, LS-SA, and HS-SR groups had one to four turns of dialogue in 50%, 55%, and 33% respectively, of their conversations. Eighty three

percent of the HS-SA conversations were between one and four turns of dialogue. The average number of turns per social pretend play episode was 6.4 for the low stress children and 7.5 for the high stress children. The number of turns per social pretend play episode was also averaged for the four groups of children: the LS-SR children averaged 6.5 turns; the LS-SA children averaged 7.3 turns; the HS-SR children averaged 8.6 turns; and the HS-SA children averaged 4.4 turns.

Table 8.
Number of Turns of Dialogue in Social Pretend Play Episodes

	Low Stress n = 27	LS-SR n = 16	LS-SA n = 11	High Stress n = 30	HS-SR n = 18	HS-SA n = 12
Number of Turns	Frequency	Frequency	Frequency	Frequency	Frequency	Frequency
1 – 9	22	13	9	23	12	11
10 – 19	4	2	2	4	4	0
20 – 29	1	1	0	3	2	1

Note. n = number of social pretend play episodes observed

The social pretend play dialogues were analyzed to see whether the children stayed at a level of general statements (e.g., 'let's clean the house' or 'let's go grocery shopping') or if they were able to move to sharing personal experiences and negotiating a shared play plan (e.g., 'my mom uses a vacuum to clean the house' 'so does mine') (Goncu, 1987). For the LS-SR group, 89% of the dialogues consisted of general statements and 11% involved sharing personal experiences and negotiating a plan. For the LS-SA group, 100% of the dialogues consisted of general statements. For the HS-SR group, 74% of the dialogues consisted of general statements and 26% of the conversations involved sharing personal experiences and negotiating a play plan. And for the HS-SA group, 92% of the dialogues consisted of general statements and 8% involved sharing personal experiences and negotiating a play plan. One example of an LS-SR play episode that moved to a level of sharing follows:

> *LS-SR child and K playing in the house area – in the kitchen area, there are some plastic frogs*
> LS-SR child: "These are our pet frogs."
> K: "Let's not cook them."
> *LS-SR child doesn't respond, but watches K look at the frogs*

K notices that one of the frogs has a leg that is just barely attached
K: "He has a broken leg. Let's take him to the doctor."
K and LS-SR child walk around the classroom once with the frog (walking to the doctor) and come back to the house
HS-SR child: "You be the doctor and I'll be the mom."
K gets the stethoscope and scissors from a nearby shelf while LS-SR child watches - K cuts off the dangling leg so that the frog only has three legs now
K: "Now you be the next." *LS-SR child agrees and continues to watch*
K: "Who's next?" *LS-SR child stands beside K*
K: "Sit down." *LS-SR child sits beside K*
K puts blood pressure cuff on LS-SR child
LS-SR child quietly watches K work the toy
LS-SR child: "I've never had a bad cold." *as K checks her heart with the stethoscope*
K puts down the medical toys and brings the frog with the amputation over to show the LS-SR child – both children look carefully at the leg
K: "I had to do it, it was too broken."
K finds reflex hammer from the shelf
K: "I'll check your legs."
LS-SR child: " It hurts here." *pointing to her stomach*
K continues to use the hammer on her legs
K finds the otoscope from the shelf and looks into the eyes and ears of the LS-SR child as she sits quietly
K tries to put all of the medical toys into one hand and check her eyes and ears with all of them
K: "Do you have any other surgeries?"
LS-SR child: "Well … I'm like the frog. I need to get my leg cut off."
K brings the scissors over to the LS-SR child
K: "You'll be in surgery for a while."
K pretends to cut her leg off and then checks the LS-SR child's temperature
K: "Do you need this leg cut off too?"
LS-SR child: "No."
K: "We'll keep the leg, but we'll do surgery." *LS-SR child agrees*
K looks at the LS-SR child's leg
K: "So, I'll cut this leg off too."
LS-SR child: "Why are you cutting this leg off too?"
K: "Because."
K starts taking the LS-SR child's blood pressure again
another child enters the house area
K: "I cut the frog's leg off." *shows the other child the frog and the leg*
K: "I also cut off her leg." *pointing to LS-SR child*
other child: "My auntie was sick and in the hospital."
K: "We are waiting for the ambulance so (LS-SR child) can go for more surgery."
K starts checking the LS-SR child again and pretends to cut at her leg
K dials the telephone
K: "We need an ambulance."

LS-SR child: "They're coming right away."
K gives LS-SR child some pretend pills
LS-SR child pretends to take them
K: "Okay bye, you're better now."
K leaves the house centre and LS-SR child starting examining the remaining frogs

The dialogues of the four groups of children were then examined to note any patterns in play themes discussed. The play themes were divided into functional play and relational play. Functional play included themes such as cooking, driving, eating. Relational play included three main themes: family roles (e.g., mom, teenage sister); occupational roles (e.g., doctor, fire fighter); and fantasy roles (e.g., ghosts, animals) (see Table 9) (Lieber, 1993).

Table 9.
Percentage of Time Spent Engaged in Different Social Pretend Play Themes

Group	Functional Play %	Family Roles %	Occupational Roles %	Fantasy Roles %
Low Stress	14%	18%	7%	61%
LS-SR	17% (e.g., sailing)	17% (e.g., mom, daughter)	11% (e.g., captain, doctor)	55% (e.g., lions, puppy, ghosts, Batman)
LS-SA	10% (e.g., eating)	20% (e.g., daddy)	-	70% (e.g., dragons, dinosaurs, polar bears)
High Stress	3%	9%	17%	71%
HS-SR	4% (e.g., dealing with a storm)	9% (e.g., sister)	13% (e.g., captain, police)	74% (e.g., tarantulas, animals, princess, bad guys)
HS-SA	-	8% (e.g., mom)	25% (e.g., police, gas attendant)	67% (e.g., Batman, dogs, cats)

Termination of Social Pretend Play

The tactics used to terminate episodes of social pretend play are the behaviours children use to end play episodes. The behaviours observed during this study included children verbally describing the termination, a ritual farewell, an unmarked farewell with a later return to the playgroup, an unmarked farewell without a later return, and other

circumstances such as the observation time ending or the teacher intervening (Lieber, 1993).

Of the social pretend play episodes that evolved into sustained play, termination tactics were observed and analyzed. Eighty one percent of the LS-SR play episodes were ended by the LS-SR children: 46% were unmarked farewells with a later return; 31% were terminated because of teacher interventions and observation times ending; and 23% were unmarked farewells without returns. Ninety one percent of the LS-SA episodes were terminated by the LS-SA children: 70% of play episodes ended because of teacher interventions and the end of observation times; 20% were unmarked farewells without return; and 10% were unmarked farewells with a later return. Ninety percent of the HS-SR children ended their social pretend play episodes: 63% of the termination tactics following under the category of unmarked farewells without return; 21% episodes ended because of the observation time being over or play time being over; and 16% were unmarked farewells with later returns. Seventy one percent of the HS-SA play episodes were ended by the HS-SA children: 50% were unmarked farewells with a later return; 30% ended because the observation time was over; and 20% were unmarked farewells without a later return.

Attitudes Towards Play: Interviews

The next stage of the data analysis involved examining the interview transcripts of the participating children. The two main goals of the interview were to identify the children's attitudes and feelings towards play and to have the children verbally describe the tactics they use when playing. The information gathered through these interviews was also meant to supplement information gathered during the play observations: the interview information was compared to observation findings to see if the tactics described by the children were actually observed.

It is important to note that two children did not participate in the interviews. One child (in the HS-SR group) was absent during the interview phase of the data collection and the other child (in the HS-SA group) declined the interview on two separate occasions. So, there were 19 children in the low stress group and 17 children in the high stress group. After breaking the groups down further in order to consider resilient

factors, the number of children within the four groups were as follows: 10 children in the LS-SR group; 9 children in the LS-SA group; 9 children in the HS-SR group; and 8 children in the HS-SA group.

Question 1: Do you like to play? Why or why not?

The first set of questions in the interview was asked to assess two things: (a) the attitude the participating children had towards playing; and (b) the rationale children gave for having this attitude. When asked about their attitude towards playing, all but one of the participating children (in the LS-SA group) said they liked to play.

In response to the question of why, the most frequently stated reason for this positive attitude fell under the category of positive personal benefits for all four groups of children - response examples included "it's fun", "it makes me feel good", and "it makes me happy". For the LS-SR and LS-SA groups, the category of no explanation was the second most frequent reason given for enjoying play with examples such as "I don't know" and "I just do". The second highest category chosen by the HS-SR group was positive school associations and it included examples such as "I like preschool" and "I like to paint, draw, and do art at school". And for the HS-SA group, the categories of positive school associations, positive peer associations, and no explanation were the second most frequently stated categories. The LS-SA child who stated that he did not like to play said "I'm just not interested in playing" as an explanation for his attitude.

Question 2: Where do you like to play? Why?

The second set of questions was asked as an extension of the first set of questions. They served two purposes: to clarify the attitudes the participating children had towards play and to identify the location the children most readily associated with their positive play experiences.

Low stress children chose home most frequently, followed by inside at school and other locations (e.g., gymnastics class). For the LS-SR children, inside at school (e.g., "on the carpet with the toys"), outside at school (e.g., "on the lawn at school"), and at home were the categories with the highest number of responses. For the LS-SA children, playing at home was the location most frequently mentioned location with responses such as "I like to play all over my house" and "I like my backyard". Inside at school was the

most frequently chosen location for the high stress children - examples within this category included "in the blocks", "anywhere in the preschool", and "on the carpet with the toys". Outside at school was the second most frequently chosen location. Interestingly, none of the HS-SA children chose home as a preferred play location whereas 11% of the HS-SR children and 39% of the low stress children chose home.

In response to the question of why the locations mentioned above were their favourite, the low stress children mentioned positive personal benefits, positive activity associations, positive peer associations, and positive toy associations most frequently. More specifically, the LS-SR children stated positive activity associations (e.g., "it's the place where I play soccer") and positive personal benefits (e.g., "it's fun" and "it makes me happy") most frequently. Positive personal benefits (e.g., "it's just my favourite place") and positive peer associations (e.g., "I can play with my friends") were the most frequently stated reasons given by the LS-SA group of children. In comparison, the high stress children mentioned positive activity associations most frequently. The HS-SR children gave responses such as "there is art there" and the HS-SR children used statements such as "that's where the toys are" and "you can build space ships there".

Question 3: What do you like to play? Why?

The third set of questions was asked to facilitate discussion about favourite activities the children like to engage in and favourite play experiences they have had. Additionally, information gathered from these questions was compared to the observation data to see if the participating children chose play activities similar to those articulated in the interview.

After categorizing activity examples given by the participating children, it was found that low stress children mentioned pretend play most frequently, but playing with toys and playing games with rules were also quite popular. The high stress children also mentioned pretend play activities most frequently, followed by playing with toys, and, although playing games with rules was mentioned, it was not nearly as popular. Close examination of the activities listed within the category of pretend play showed the following: the LS-SR group listed activities such as house, doggies, and dinosaurs; the LS-SA children listed Superman and Batman activities; the HS-SR group listed activities

including house, rescues, daddy tiger and mommy tiger, and Sailor Moon; and the HS-SA children stated activities such as people, bears, and house.

In comparing this interest in pretend play to the observed play episodes, it was found that 25% of the HS-SR observations, 16% of the LS-SR observations, 12% of the HS-SA observations, and 11% of the LS-SA observations involved social pretend play episodes. An analysis of the play themes exhibited during these episodes showed that more than half of the low stress children's play involved fantasy roles such as lions, ghosts, monsters, dragons, and polar bears and an equally high number of the high stress children's observations involved fantasy roles such as tarantulas, princess, bad guys, dogs, and cats.

In response to the question of "why?", the low stress children gave activity preference rationales falling into the categories of positive personal benefits and positive activity associations. The LS-SR children most frequently gave answers falling into the categories of positive personal benefits (e.g., "it's fun" and "it gives me energy") and no explanation (e.g., "I just like them") and the LS-SA children gave positive personal benefit explanations (e.g., "it makes me feel good") most frequently. The high stress children listed positive activity associations most frequently, followed by positive personal benefits. Examples of their positive activity association rationales included "you get to choose your own colours", "I get powers from the sand", and "we do things like eat food".

Question 4: Do you like to play alone or with other children? Why?

The fourth set of questions was asked to assess the personal play grouping preferences the children had. Additionally, the children's responses increased understanding of the reasoning behind these stated preferences.

The majority of children in both the low and high stress groups stated "playing with other children" as their preferred choice for playing. Choosing to both play alone and with other children was the second most frequently chosen grouping for the LS-SR (30%), LS-SA (30%), and HS-SR (33%) groups. In comparison, thirty eight percent of the HS-SA children chose playing alone as their preference – none of the children from the other groups chose this play grouping.

In response to why they preferred the groupings they stated, the low stress children most frequently gave reasons relating to the positive outcomes of playing with

other children (e.g., "everyone is my friend", "I can play soccer with my friends", "they have good ideas", and "they make me feel good"). Similar to the low stress children, the HS-SR children chose positive benefits of playing with other children most frequently (e.g., "then I don't have to pretend that there's other people" and "it's better playing with someone else"). The HS-SA children also chose positive benefits of playing with peers (e.g., it's fun – it might not be fun just by myself") most frequently, but 22% of the responses included positive reasons for playing alone (e.g., "I like it by myself") and 11% of the responses included negative reasons for playing alone (e.g., "the other kids don't like me").

Question 5: How do you start playing with someone?

The fifth question was asked to evaluate the tactics used by the participating children to enter play. These answers were then compared to the tactics the children used during the observations.

In examining the tactics suggested by the low stress children, more than half suggested the direct tactic of questioning and a third suggested the indirect tactic of just starting to play. Seventy percent of the strategies given by the LS-SR children were direct entry tactics: questioning (e.g., "I go up to them and ask 'Can I play?'") and suggesting (e.g., "I say 'what do you want to play?' and they come up with an idea"). Thirty percent of the strategies given by the LS-SR children were indirect tactics (i.e., just start playing). Sixty seven percent of the LS-SA strategies involved using the direct entry tactic of questioning (e.g., "I ask them if I can play with them and if they say no, I won't") and 33% of the responses involved the indirect tactic of just starting to play.

In evaluating the strategies given by the high stress children, half suggested the direct tactic of questioning and half suggested the indirect tactic of just starting to play. Seventy eight percent of the tactics given by the HS-SR children involved using the direct entry tactics of questioning (e.g., "I ask them if they want to play") and suggesting (e.g., "I say 'let's play with this' to the boy about a toy") and 22% of the strategies suggested the indirect entry tactic of just starting to play. For the HS-SA group, 62% of the responses included the indirect entry tactic of just starting to play, 25% suggested the direct tactic of questioning (e.g., "I ask 'would you please play with me?'"), and 13%

replied that they just like to play alone (e.g., "I don't play with other kids" and "I just do puzzles by myself").

In comparing these suggested tactics to the tactics observed in the social pretend play episodes, it was found that the LS-SR suggested the direct tactic of questioning 70% of the time, but they used direct and indirect tactics equally in the observed social pretend play episodes. The LS-SA children suggested the direct tactic of questioning in 67% of their responses and they did use direct tactics more than indirect tactics. The HS-SR children suggested direct tactics in half of their responses, but they used direct tactics more than indirect tactics. The HS-SA children suggested direct tactics in 67% of their responses and they said they would just play alone in 13% of their responses, but they used direct and indirect tactics equally in the observed social pretend play episodes.

Question 6: What do you do if you want to play with something that someone else is playing with? Why?

The sixth set of questions was asked to learn whether a direct or indirect tactic would be used by the participating children in response to this play issue. Additionally, the childrens' responses indicated positive or negative approaches to this specific play situation. The direct tactic of asking for the child's toy was considered to be a negative approach as it usually results in conflict or frustration.

Overall, the low stress children suggested direct tactics in 56% of their responses and indirect tactics in 44% of their responses. Eleven percent of their suggested tactics were considered to be negative. The LS-SR children suggested the use of indirect tactics (i.e., finding a different toy, waiting for the child to finish with the toy) in 55.5% of their responses and direct tactics (i.e., ask and wait for toy, ask to play with the child) in 44.4% of their responses. All of the tactics suggested by the LS-SR children were positive. In evaluating the responses of the LS-SA children, it was found that 33.3% of their suggested strategies were indirect (i.e., waiting for child to finish, finding a different toy) and 66.6% were direct (i.e., ask and wait for toy, directly ask for toy, and ask a teacher). Of the LS-SA responses, 22.2% (i.e., directly asking for the toy) were considered to be negative as they expected the children to give the toy to them which could lead to conflict.

For the high stress children, direct tactics were suggested in 48% of the responses and indirect tactics were suggested in 52% of the responses. Thirty seven percent of the

responses were considered negative. The HS-SR answered this question by suggesting indirect tactics (i.e., waiting for the child to finish, finding a different toy) in 44.4% of the responses and direct tactics (i.e., directly asking for the toy, asking to play with child) in 55.5% of the responses. Forty four percent of the responses were considered to be negative. In evaluating the HS-SA responses, it was found that these children suggested indirect tactics (i.e., finding a different toy, waiting for the child to finish) in 60% of their answers and direct tactics (i.e., directly asking for the toy, asking to play with child) in 40% of their replies. Thirty percent of their suggested strategies were negative.

Of the observed social pretend play episodes, there was only one involving the previously mentioned toy dilemma. A LS-SA child attempted to make a direct claim on the object of another child and this tactic resulted in a negative response from the play group the child was trying to enter.

Question 7: What do you do when you don't want other people to play with you?

The seventh question was also asked to determine whether the children used tactics that were direct or indirect and positive or negative. An examination of the suggested tactics showed that 67% of the solutions given by the low stress children were direct. Fifty two percent of the suggested tactics were classified as negative, meaning they would most likely result in conflict, frustration, or hurt feelings. In evaluating the suggested tactics given by the participating children, the LS-SR group of children suggested indirect tactics in 20% of their responses (e.g., "move away from the child") and direct tactics in 70% of their responses (e.g., "play anyways", "tell them no directly"). Ten percent of their responses fell into the category of no explanation (e.g., "I don't know"). Of the LS-SR suggested tactics, 50% were positive and 40% were negative (e.g., "tell them no" - shouting, "move away from them", "ignore them"). For the LS-SA group, 46% of the suggested strategies were indirect, 45% of the strategies were direct, and 9% of the answers fell into the category of no explanation. Twenty seven percent of the suggested responses of the LS-SA group were positive and 64% were negative.

An evaluation of the high stress children's suggestions showed that 82% of the given tactics were direct and 48% of the tactics were considered negative. In examining

the suggested tactics given by the HS-SR group, it was found that 11.1% of the tactics were indirect and 88.8% were direct (including "I will play with you later"). Of the HS-SR suggested tactics, 88.8% were positive and 11.1% were negative. And for the HS-SA group of children, 25% of the suggested strategies were indirect, 62.5% were direct, and 12.5% were categorized as other (e.g., "give them a treat"). Of the HS-SA replies, 37.5% were considered to be positive approaches and 62.5% were considered to be negative (including "give them a treat").

Interestingly, almost all of the observed social pretend play episodes involved the children accepting the play request of another child through direct and indirect tactics. Only one of the observed social pretend play episodes involved conflict – one of the LS-SA children chased a group of children away from the fort he and one other child were building when they asked to join the play.

Question 8: What do you have to do to be good at playing?

The last question, although somewhat confusing for a few of the participating children, was left in the interview to see how the children would explain their play mastery.

An evaluation of the replies given by the low stress children showed that 50% of the responses attributed play abilities to personal factors and 28% of the responses referred to the development of their play skills. In examining the responses given by the LS-SR group of children, it was found that 59% of the explanations alluded to personal factors such as age, behaviours, and abilities (i.e., activities the children were good at, being polite, and enjoying play), 25% of the explanations involved play skills (i.e., thinking about play, practicing play), and 16% of the explanations included responses such as "I don't know" and "I eat healthy food". For the LS-SA group, 40% of the reasons for being good at play included personal factors such as being polite and listing activities they were good at, 30% of the reasons involved play skills (i.e., thinking about play, practicing play), and 30% of the reasons included explanations such as "I don't know", "from food like spaghetti and pizza", and "I eat leaves (lettuce) ...leaves make you go to the sky".

An analysis of the high stress children's responses showed that 54% alluded to personal factors and 20% attributed their play success to the development of play skills. In evaluating the responses of the HS-SR group of children, it was found that 40% of the

explanations involved personal factors (i.e., following rules, being polite, and being old enough to go to school), 40% of the explanations involved play skills (i.e., thinking about play, practicing play), 10% of the explanations attributed play abilities to playing with peers, and 10% of the explanations related to having their own toys. And for the HS-SA group of children, 67% of the explanations were related to personal factors (i.e., activities they are good at, following rules, and being polite), 22% of the reasons involved playing with peers, and 11% of the children responded that they didn't know why they were good at playing.

Perceived Competence and Social Acceptance

As stated previously, the cognitive competence, physical competence, and peer acceptance subscales of the preschool and kindergarten version of the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (Harter & Pike, 1984) were used for this study. The scores were tallied and averaged for the different groups of children (see Table 10).

Table 10.
Scores for the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children

	Cognitive Competence		Peer Acceptance		Physical Competence		Overall Score	
Groups of Children	M	SD	M	SD	M	SD	M	SD
Low Stress (n=18)	3.65	.13	3.14	1.48	3.27	.61	3.35	.46
LS-SR (n=10)	3.58	.45	3.21	.60	3.28	.61	3.36	.19
LS-SA (n=8)	3.73	.30	3.04	.68	3.25	.65	3.34	.35
High Stress (n=16)	3.46	.13	3.09	.08	3.43	.62	3.32	.41
HS-SR (n=9)	3.58	.27	3.0	.74	3.65	.47	3.41	.36
HS-SA (n=7)	3.31	.49	3.07	.52	3.14	.70	3.17	.12

Note. LS-SA (n=8) – one child would not participate
HS-SR (n=9) – one child was absent
HS-SA (n=7) – two children would not participate

Using t-tests, no significant differences were found between the scores of the low and high stress children: there were no significant differences found for any of the sub-scales, nor were there any significant differences found in the overall scores (Cognitive Competence (t (1, 32) = 1.84; $p > .18$); Peer Acceptance (t (1, 32) = .25; $p > .61$); Physical Competence (t (1, 32) = .56; $p > .45$); Overall Score (t (1, 32) = .04; $p > .84$). One-way ANOVAs were used to check for any significant differences between the scores of the LS-SR, LS-SA, HS-SR, and HS-SA groups: Cognitive Competence (F (3, 37) = 1.278, $p > .29$); Peer Acceptance (F (3, 37) = .886, $p > .45$); Physical Competence (F (3, 37) = 1.063, $p > .37$); Overall Score (F (3, 37) = 1.049, $p > .38$). No significant differences were found.

Summary

This study found several patterns emerging within the results. An examination of the stressful life events and circumstance factors experienced by the participating children showed significant associations between the low and high stress children in the factors of family separation and illness/death. A significant association was also found between the four groups of children and the factor of family separation. Additionally, the LS-SR, LS-SA, and HS-SR children experienced family separation and illness/death factors most frequently whereas the HS-SA children experienced family turmoil factors most frequently.

An examination of the play observations found that all of the children engaged in social exchanges with peers most frequently during observed play time. Three quarters of the high stress children engaged in episodes of social pretend play whereas half of the low stress children engaged in episodes of social pretend play. Direct tactics were used most frequently to enter episodes of social pretend play and just starting to play, an effective play strategy, was the tactic most children used to initiate social pretend play. The high stress, stress resilient children had the longest averaged dialogues of social pretend play and they shared personal experiences during social pretend play most frequently out of all the children. The majority of play themes observed involved fantasy play.

When asked about playing, most children had positive attitudes. The low stress children preferred home as their favourite play location and the high stress children

favoured school. Finally, 38% of the high stress, stress affected children stated that they preferred to play alone all of the time when none of the other children stated this preference.

CHAPTER FIVE - DISCUSSION

Restatement of the Purpose of the Study

The purpose of this exploratory study was to examine both stress and resilience by examining the play tactics and perceived competence of low and high stress children and stress-resilient children and their stress-affected peers. By studying children that overcome the odds and continue to show healthy development despite facing high levels of stress, a greater understanding of the resilience construct and more informed prevention and intervention programs are possible (Cowen et al., 1995). Furthermore, focusing on the early childhood years allows for the study of children when they are more flexible and malleable (Andrews & Trawick-Smith, 1996; Hoyt-Meyers, 1993). This critical period of development is important as it offers the potential for powerful prevention and intervention programs that effect the subsequent growth of children facing the adverse circumstances of life stress. In the sections that follow, study findings are discussed and related to existing literature and future directions for research and practice are suggested. Additionally, limitations of this study and implications for researchers and practitioners are presented and discussed.

Life Events and Circumstances Information and Group Classification

Classifying the participating children as both high or low stress and LS-SR, LS-SA, HS-SR, or HS-SA allowed for a more detailed analysis of the effects of stress, the play tactics young children use during social pretend play, and the self-perceptions of young children. Although classifying low stress children as stress-resilient does not fit within the parameters of the resilience definition (i.e., resilience implies coping well with high levels of stress), this group was included in this exploratory study to act as a comparison group for the children considered to not be well adjusted by their parents and teachers.

In examining the number of stressful life events and circumstances (SLE-C) experienced by the participating children, significant differences were found between the low stress groups (i.e., LS-SR, LS-SA) and the high stress groups (i.e., HS-SR, HS-SA). The mean number of SLE-Cs experienced by the high stress children in this study ($\underline{M}$ = 6.1 SLE-Cs) was low as compared to other resilient research: 8.7 SLE-Cs (Hoyt-Meyers,

1993); 8.8 SLE-Cs (Wyman et al., 1991). This may be due to the fact that the Rochester Child Resilience Projects were sampled from large urban areas associated with low socio-economic status (Cowen et al., 1990) and the present study participant sample was primarily middle socio-economic status with parents that chose to enrol them in a preschool program. Therefore, extremes cases of stress were not present in this study and may have contributed to the lack of statistically significant results.

Further examination of the SLE-Cs experienced by the participating children showed that there were significant associations between the low and high stress children in relation to the SLE-C factors (derived from the LEC) of family separation (e.g., close family member away from home more than five days a month) and illness/death (e.g., a relative with whom our child had a VERY CLOSE relationship died). Similarly, a significant association was found between the four groups of children (LS-SR, LS-SA, HS-SR, and HS-SR) and the SLE-C factor of family separation. It is also important to note that the LS-SR, LS-SA, and HS-SR children experienced family separation and illness/death stressors most frequently whereas the HS-SA children experienced family turmoil stressors (e.g., our child was upset by family arguments) most frequently. Other studies analyzing the association between stress-resilient and stress-affected children and the five SLE-C factors have found significant differences between SR and SA groups in relation to the family separation factor (Work et al., 1990). Although the result was statistically significant, this single factor couldn't account for the difference in characteristics and coping behaviours between the SR and SA children because of the small sample size.

Socio-demographic Information

Socio-demographic information was collected from parents of the participating children as a means of linking the findings of this study to that of previous resilience research as well as to provide adequate information on the sample of participating children in this study (Luthar, 1993). The only socio-demographic hypotheses made prior to the study were that differences may be found between stress-resilient and stress-affected children in the number of siblings the children had and the amount of time the parents spent interacting with the children. It was hypothesized that low stress children (i.e., LS-

SR and LS-SA) and high stress, stress-resilient (HS-SR) children would have fewer siblings and their parents would spend more time interacting with them. Previous research has found that children who exhibit resilient behaviours were first born and didn't have any siblings until they were at least 20 months old (Werner, 1990). Additionally, children considered to be resilient had a strong attachment to at least one caregiver as exhibited in their warm interactions and the quality time they spent together (Murphy & Moriarty, 1976; Werner, 1990). In examining the socio-demographic information provided in this study, no significant differences were found between any of the classified groups of children. This may be due to small sample sizes or it may be the result of the limited descriptive nature of the questionnaire (e.g., parent income categorized into one of four categories with over $28 000 being the highest income level).

Time Spent in Social Pretend Play

Initially, the observed free play episodes of the participating children were examined to determine what percentage of their play time was spent engaged in episodes of social pretend play. It was hypothesized that the low stress children (i.e., LS-SR and LS-SA) and the high stress, stress-resilient (HS-SR) children would engage in social pretend play more frequently because the low stress children would have less stress to deal with and the stress-resilient children would possess more of the skills needed to engage in this increasingly demanding level of play (Bloom, 1996; Earls et al., 1987). There were no significant differences found between the groups of children and the proportion of time they spent engaged in the different types of play. This may be due to the limited number of children participating in the study.

It was found that the HS-SR children spent 25% of their observed time in episodes of social pretend play as compared to 16% for the LS-SR group and close to 10% for the HS-SA and LS-SA groups. Overall, the average percentage of time spent in episodes of social pretend play for the children participating in this study was 16%. This percentage is similar to the results of Lieber's (1993) study which found that the percentage of time preschool children with and without disabilities engaged in social pretend play ranged from 17% to 21% with an average of 19%. This percentage varied greatly from other preschool social pretend play studies: Droege and Howe (cited in Lieber, 1993) observed

social pretend play in only 2.1% to 7.8% of play episodes; and Howes (1987) observed social pretend play in 46% to 55% of play episodes. It is interesting to note that an evaluation of how many participating children were involved in episodes of social pretend play found that three quarters of the HS-SR children engaged in social pretend play episodes as compared to around half of the children in the other groups. This result is limited though, in that only target children, and not the other players, were recorded.

An examination of social pretend play episodes from the present study showed that they were relatively long as compared to the play of other preschool children. Lieber's (1993) study found that the typical children engaged in episodes averaging 38.63 seconds and children with disabilities had episodes that averaged 42.23 seconds. With average social pretend episodes ranging from 195 seconds for the LS-SR children to 156.6 seconds for the HS-SA children, the overall average for the participating children in this study was 176.6 seconds. Large differences found between the social pretend play episodes of this study and Lieber's study may be explained by the less structured play environment of the present study which allowed for more flexibility in play themes and play development. Additionally, children with and without disabilities were paired for observations in Lieber's study whereas the present study allowed the children to pick their own play partners. This choice afforded children the opportunity to pick familiar play partners with similar interests and experiences which may have resulted in longer play episodes.

Entry Tactics

The majority of the participating children used entry tactics in the observed episodes of social pretend play. It was hypothesized that the low stress children (i.e., LS-SR and LS-SA) and the high stress, stress-resilient (HS-SR) children would use indirect entry tactics as they negotiate their way into play groups because the low stress children have less stress to deal with and the stress-resilient children possess more developed skills such as perseverance and self confidence which may lead to more implicit entry attempts (Bloom, 1996; Garmezy, 1991; Luthar, 1993). These indirect play entry attempts have been found to result in more successful play outcomes (Creasey et al., 1998; Goncu, 1987). In evaluating the entry tactics of the participating children, LS-SR and HS-

SA children used indirect and direct tactics equally whereas the HS-SR and LS-SA children used mainly direct tactics. Lieber (1993) found that children with disabilities used indirect tactics in one third of their entries and disruptive tactics in a quarter of their entries. In comparison, children without disabilities used indirect tactics half of the time and disruptive tactics in only 10% of their entries.

Contrary to predicted results, none of the groups in this study relied heavily on implicit entry tactics. Direct tactics may have been observed more than was hypothesized because using indirect tactics such as showing interest non-verbally, producing a variant of behaviour, and non-verbally entering the play space are skills that improve as children grow older and learn to approach play groups without making overt demands that interrupt ongoing play (Corsaro, 1979). Additionally, as children grow, they become more group-oriented and learn to consider the needs of others as they try to enter a play group (Goncu, 1987).

In evaluating the outcomes of the entry tactics used, the LS-SR, HS-SA, and HS-SR children received mainly positive responses as opposed to the LS-SA children, who received no response to many of their entry bids. This result may be explained by the LS-SR, HS-SA, and HS-SR groups being more persistent in their attempts, as perseverance in entering play groups is an important component of initial play negotiations (Goncu, 1987; Lieber, 1993). A closer examination of these persistent attempts also showed that the LS-SA children were the only children who didn't modify their attempts. For example, one of the LS-SR children said "the boat's crashing" which received no response, but when he tried "iceberg ahead" and started acting scared, the other children in the boat responded. In comparison, a LS-SR child came over to a play group and said "this will be a jungle" three times without a response and then started playing by himself.

An examination of the outcomes of all indirect entry attempts (e.g., non-verbal entry, variant of behaviour) used by the participating children showed that positive responses were consistently found whereas the responses to direct attempts (e.g., questioning, suggesting a different activity) were positive only half of the time. These outcome results are consistent with existing research (Corsaro, 1979; Goncu, 1987).

Initiation Tactics

The initiation tactics were assessed as the target children attempted to make the transition from non-pretend play to pretend play. It was hypothesized that the low stress children (i.e., LS-SR and LS-SA) and the high stress, stress-resilient (HS-SR) children would use the tactic of just starting to play, as low stress children have fewer life stresses to deal with and can focus on their personal development and stress-resilient children have more problem solving skills and positive attitudes that aid in the negotiation of turning play into social pretend play (Bloom, 1996; Earls et al., 1987; Werner, 1990). The specific initiation tactic of enacting roles immediately relies on the more developed skills of indirectly communicating a play plan either verbally or non-verbally (e.g., facial expressions and gestures) and these implicit tactics frequently lead to more developed social pretend play episodes (Goncu, 1987). It was found that LS-SR children just started playing in all observed episodes, HS-SA children just started playing in three quarters of the episodes, and the LS-SA and HS-SR children started playing in just over half of the episodes. Although these group results were not predicted (the HS-SA children started playing in more episodes than the HS-SR children), the overall finding that most of the children just started to play is consistent with other play initiation research that has found three to five year old children use the initiation tactic of just starting to play more frequently than discussing roles (Goncu, 1987; Lieber, 1993).

In evaluating the outcomes of the initiation tactics used, it was found that all four groups of children had more positive responses using the indirect approach of just starting to play, but the HS-SR and HS-SA group also received many positive responses when roles were discussed first. Episodes where the HS-SR and HS-SA children used the initiation tactic of discussing roles first may have resulted in successful social pretend play episodes because the role discussions were mixed with statements regarding the plot, a tactic associated with just starting to play (Goncu, 1987).

Maintenance of Play

The criteria for successfully maintaining social pretend play episodes involves longer play dialogues that move beyond just stating general play information to sharing experiences that lead to commonly understood play themes (Goncu, 1987). It was

hypothesized that the low stress children (i.e., LS-SR and LS-SA) and the high stress, stress-resilient children would have more success in maintaining social pretend play as the low stress children had fewer stress factors that may adversely affect their development and the stress-resilient children have more of the skills and attitudes needed to share personal experiences and negotiate commonly meaningful and understood play themes (Garmezy, 1991; Rutter, 1987; Werner, 1990). The number of turns found in each social pretend play episode were evaluated as a measure of how long the dialogues lasted: HS-SR children had the highest number of turns followed by the LS-SA and LS-SR children. The dialogues of the HS-SA children which were only half as long as the HS-SR dialogues. Negotiations in this stage of social pretend play rely on straightforward and direct verbal communication (Goncu, 1987). Differences in previous research have been explained by expressive language abilities (Lieber, 1993), but these abilities were not assessed in this study. Future studies in this area would benefit from this additional information in an attempt to explain differences.

An examination of the tactics used to develop successful play themes in the social pretend play episodes found that 26% of the HS-SR dialogues moved to a level of sharing, whereas only 11% of the LS-SR and 8% of the HS-SA dialogues did and none of the LS-SA dialogues moved beyond general information. This result is limited because only the target child's stress and adjustment levels were identified. Future studies could consider the combinations of children (e.g., HS-SR and LS-SR child) involved in the two levels of communication (i.e., general statements or sharing).

Functional play themes (e.g., eating, cooking, dressing) are considered to be the basic level of social pretend play, relational play (e.g., family and occupational roles) is more complicated, and fantasy play (e.g., ghosts, animals) that relies more on words and abstract representations of objects is considered to be the most creative and developmentally advanced level of social pretend play (Goncu, 1987; Lieber, 1993). In exploring the social pretend play dialogues of the children in this study to see what types of play themes emerged, it was found that all of the groups spent the majority of their play time developing fantasy play themes. Additionally, it is interesting to note that the majority of the observed fantasy play episodes occurred outside where there were few props. The high number of fantasy play themes may be explained by the unstructured

free-play opportunities because learning environments without highly structured dramatic play areas result in social pretend play that move beyond functional or relational play themes (Howes, 1992).

Termination of Play

The termination of social pretend play episodes is an area with little research regarding the most effective tactics used (Goncu, 1987). Goncu did find that fewer than 1% of young children used termination statements – instead, they just left the play. Considering the limited amount of research in this area, a hypothesis was not presented. Instead, the objective was to gather descriptive information. In assessing the termination of social pretend play episodes, it was found that the majority of the participating children ended their play episodes. Detecting patterns in the termination tactics used was not as obvious: close to half of the LS-SR and HS-SA termination tactics were unmarked with the child returning later, over half of the HS-SR termination tactics were unmarked without a later return, and close to three quarters of the LS-SA social pretend play episodes ended because of teacher interventions or observation times ending.

Attitudes Towards Play

It was hypothesized that the low stress children (i.e., LS-SR and LS-SA) and the HS-SR children would have more positive attitudes towards play at school and with peers and they would discuss more effective play strategies. These hypotheses were based on the fact that the low stress children had fewer life stresses to deal with and it is therefore easier for them to focus on learning and growing and the stress-resilient children have been found to be socially oriented, they possess many problem solving skills, and they show perseverance (Earls et al., 1987; Werner, 1990).

All but one child, who was classified as low stress, stress-affected (LS-SA), had a positive attitude towards playing. All of the groups of children listed positive personal benefits (e.g., "it's fun") most frequently as the rationale for their positive play attitude.

The low stress children stated home most frequently as their preferred location to play. In comparison, the majority of the high stress children chose inside at school. None of the HS-SA children chose home as their favourite place to play as compared to 11% of the HS-SR children and 39% of the low stress children. All of the participating children

stated positive activity associations most frequently for their location preference rationales, but unlike the high stress children, the low stress children also gave many rationales related to peers and toys at home. The difference in location preference between the high and low stress children is an area that warrants further study: perhaps the difference is the result of the high stress children facing many stressors at home and when they spend time at school, they enter a safe, relatively conflict free environment where they can focus on playing whereas the low stress children may enjoy playing at home because there are fewer stressors affecting their home life.

All of the children listed pretend play activities most frequently as their favourite thing to play, followed by toys, and games with rules. The LS-SR, HS-SR, and HS-SA groups of children listed pretend play based on imagined plots most frequently with themes such as house, dinosaurs, rescues, and people. In comparison, the LS-SA children mentioned pretend play themes based on commercial products (e.g., Superman and Batman) most frequently. Further studies in relation to pretend play preferences could be pursued in the future: the LS-SA preference for commercially based play themes may be linked with their preference for home play and their positive toy association. In response to why they enjoyed the type of play they did, the low stress children discussed how the play benefits them personally (e.g., "it makes me feel good") whereas the high stress children gave positive activity associations (e.g., "we do things like eat food") as their rationale for liking to play.

The majority of the children in all of the groups stated that they liked to play with other children because other children "have good ideas" and "it's better playing with someone else". It is interesting to note though, that none of the LS-SR, LS-SA, or HS-SR children said that they would choose to only play alone (one third of each group stated switching between playing alone and with other children as their preference) whereas 38% of the HS-SA children stated that they liked to play alone. Rationales given by the HS-SA children for playing alone included "I like it by myself" and "the other kids don't like me". In future studies, peer and teacher ratings of peer acceptance could be compared with the personal play group preferences of the children to see if there are any patterns. This could be researched in either an exploratory design or a pre and post-test design if a resilient play behaviour intervention was implemented.

Play Tactics

The majority of the HS-SR, LS-SR, and LS-SA children listed direct tactics (e.g., questioning and suggestions) as their preferred approach to playing with someone else. The majority of the HS-SA children said they would just start playing with other children. Interestingly, using more implicit tactics for starting play with other children is thought to involve more developed negotiations skills in which the target children are learning to consider the needs of other children more (Goncu, 1987). In comparing these suggested tactics to the tactics observed in the social pretend play episodes, the LS-SR and HS-SA children used direct and indirect tactics equally whereas the LS-SA and HS-SR children used direct tactics more than indirect tactics. Further comparison studies of observed versus verbally expressed tactics for entering and initiating social pretend play could be completed in the future and compared to literature to see if stress and adjustment levels do affect tactics.

Considering the dilemma of what to do if someone else is using the toy they want, all of the children were split fairly equally between using direct and indirect tactics. The LS-SR and HS-SA children favoured indirect tactics (e.g., find a different toy) slightly and the LS-SA and HS-SR children leaned more towards direct tactics (e.g., directly ask for the toy). Additionally, the tactics given were rated as positive or negative based on their predicted outcomes: Almost half of the HS-SR children gave strategies rated as negative followed by the HS-SA children and LS-SA children. All of the suggestions made by the LS-SR children were considered to have positive outcomes. Of the observed social pretend play episodes, there were very few involving the previously mentioned toy dilemma. Only one LS-SA child attempted to make a direct claim on the object of another child and this tactic resulted in a negative response from the play group the child was trying to enter.

In response to a different play dilemma, what you do when you don't want other children to play with you, the majority of the LS-SR, HS-SR, and HS-SA children suggested direct tactics such as telling them no directly and playing with them anyways whereas the LS-SA children were split between direct and indirect tactics. The majority of the tactics suggested by the LS-SR and HS-SR children were classified as positive, but the LS-SA and HS-SA groups suggested many conflict oriented approaches.

Interestingly, almost all of the observed social pretend play episodes involved the children accepting the play request of another child through direct and indirect tactics. Only one of the observed social pretend play episodes involved conflict – one of the LS-SA children chased a group of children away from the fort he and one other child were building when they asked to join the play.

When asked what they do that makes them good at playing, all of the children listed personal characteristics such as their age, being polite, and following rules most frequently. Responses related to their play skills (e.g., practicing play, thinking about play) were also stated frequently.

Perceived Competence

In comparison to the observation and interview data that measured social pretend play behaviours in an effort to measure external resiliency, the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (Harter & Pike, 1984) was used to measure the internal resiliency of the participating young children. Based on the information generated from the Rochester Child Resilience Project (Hoyt-Meyers, 1993; Wyman et al., 1991), it was hypothesized that the low stress children (i.e., LS-SR and LS-SA) and the high stress, stress-resilient children would have stronger perceived competencies than the high stress, stress-affected children. In comparing the subscale and average means for the low and high stress groups of children, no statistically significant differences were found. In comparing the subscale and average means for the four groups of children, no statistically significant differences were found. This may be due in part to statistical limitations resulting from the low number of children classified into each group.

Limitations and Implications for Researchers and Practitioners

Given the importance of doing research on resiliency with young children, future studies should build on the emerging patterns from this study as researchers continue to contribute to the growing understanding of resilience and the increased awareness of stress and resilience by early childhood educators. This will yield more informed prevention and intervention programs for young children at risk in the future. In order to improve the quality of future studies, it is important to consider the limitations of this present study.

Several factors need to be explored when considering the limited generalizability of this study. This study had a very small sample, especially when it was initially divided into the low and high stress groups and then further into the LS-SR, LS-SA, HS-SR, and HS-SA groups. A replication study with a larger number of participating children would allow for more reliable statistics. The generalizability of this study is also limited by the limited ethnic distribution of the sample. Additionally, the participating children were drawn from a small urban city which limits the findings to similar young children living in a small urban city.

An examination of the sample of participating children shows that they came from a primarily middle socio-economic status and their parents all chose to enrol them in a preschool program. Therefore, extremes cases of stress were not present in this study and this may contribute to the lack of statistically significant results.

In considering the length of the study, it is important to note that completing a short-term study such as this one allows for a more thorough study of life-span development (i.e., this study focuses on play behaviours and perceived competence in the early childhood years whereas other studies may focus on salient developmental milestones associated with middle childhood and adolescence). Although this type of study is important, it could be argued that a longitudinal study focusing on the resilient behaviours of young children in relation to their play behaviours and perceived competence could be monitored over time to consider varied life circumstances, all of which would reflect the non-static nature of resilience (Cicchetti & Garmezy, 1993). Longitudinal studies may also shed more light on the mechanisms that underlie the resilient process (e.g., transactional factors), a direction that many resilient researchers are moving towards (Hoyt-Meyers, 1993).

An examination of the procedure and results generated from the stressful life events and circumstances checklist showed an area that warrants more detailed studies. With the LS-SR, LS-SA, and HS-SR children experiencing family separation and illness/death stressors most frequently and the HS-SA children experiencing family turmoil stressors (e.g., our child was upset by family arguments) most frequently, further resilience studies focusing on young children could explore the five SLE-C factors derived from the life events and circumstances checklist (Cowen et al., 1990) to see if there is a relationship

between the types of stress experienced (i.e., five SLE-C factors) and the coping abilities of the stress-resilient and stress-affected children.

An evaluation of the socio-demographic information procedures and findings resulted in considerations for future studies. With no significant differences found between the socio-demographic information of the different groups, a larger sample size may produce a more detectable significant difference. Additionally, through critically analyzing the socio-demographic questionnaire for more effective use, some of the questions could have been more specific – namely, income level and time spent interacting with children. Income levels were assessed using a four point scale whose last category was over $28 000.00 (Centre for International Statistics, 1999). The results show that this scale was very limited in assessing differences and by adding more income categories, more detailed differences in income levels may have been found. In assessing the amount of time parents spent interacting with their child, having the parents chart the time for some duration of time (e.g., one week) may have yielded a more accurate representation with times that didn't vary as much (e.g., from 10 minutes to 420 minutes).

Through further reflection, more detailed socio-demographic information and other information related to resilient behaviours (e.g., strong parent-child attachments early in life) may have been more easily learned through parental interviews. Other research has shown parent interviews have revealed that SLE-C data substantially underestimated the true number of stressful events and circumstances that the high stress children had experienced: transitory nature of families; living conditions (neighbourhood concerns and housing standards); ecology of highly stressed families (e.g., noise levels, number of children, transitory nature of relationships); and reports of experiences judged as too delicate to include in LEC (e.g., sexual and physical abuse, neglect) (Cowen et al., 1990; Wyman et al., 1991). In future studies, parent interviews could be incorporated to give more insight into the circumstances in which the participating children are living.

In evaluating the validity and reliability of the observation procedure used in this study, it is important to note that although the researcher was the primary observer (resulting from preschool director requests for minimal disruption), precautions were taken. The number of SLE-C experienced and the classification of the children as either stress-resilient or stress-affected were not calculated until after the data collection was

complete, which minimized observer bias. Inter-observer reliability ratings were completed during the data collection and showed acceptable levels. In future studies, having an observer who is relatively naive to the purpose of this study will keep observer bias and redefinition of observational variables to a minimum during the observation process. Additionally, future studies could incorporate an observation procedure that incorporates follow-up interviews, which allow children to explain their play (Rettig & Salm, 1992). Follow-up interviews have resulted in more recorded episodes of dramatic play and fewer episodes of functional play (Rettig & Salm, 1992).

Only two 15 minute observations per child were completed for this study, but longer and more frequent observations in future studies would lead to a more typical portrayal of childrens' behaviours. For this study, video taping was not used as it was feared that it would deter parental consent, but in future studies, video taping would add more detail to the running records used (Lieber, 1993).

Through the coding and analysis process used for the observation data, it became apparent that more detailed outcomes of tactics used categories could have been used. By using only positive, negative, and no change categories, it was difficult to show variability in success. For example, the tactics used may have been responded to positively, but the play wasn't sustained for long.

It is interesting to note that an evaluation of how many participating children were involved in episodes of social pretend play found that most of the HS-SR children engaged in social pretend play episodes as compared to around half of the children in the other groups. This result is limited though, in that only target children were recorded. In future studies, it would be important to note how the other children involved in the social pretend play episodes were categorized (e.g., HS-SR child playing with LS-SA child) to see if there are any detectable patterns between play mates. Previous research has found that the ability to engage in reciprocal play themes develops steadily after three years of age (Goncu, 1987), so with future studies that address the need for larger sample sizes and look at the play tactics of resilient children longitudinally, the ability to maintain play through shared themes could be tracked for age patterns within the classified groups.

Results from the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (Harter & Pike, 1984) showed no significant findings. Future studies

should include not only increased group sizes, but by having both the teachers and children complete the scale, researchers could examine how accurate the children's judgements are as inflation or deflation of one's abilities maybe correlated with their behaviours (Harter & Pike). With a longitudinal study, self-perceptions could be compared over time to see whether they correlate with resilient behaviours (strong adjustment ratings) in younger children, or if this correlation is only found in older children.

Overall, the findings from this study are limited because of the limited sample size, but several patterns have emerged and important practical implications have been found. These implications are important to consider as educators and schools (preschool and primary) are among the most influential factors on the development of young children: There are many daily opportunities to learn and practice social skill development as well as developing strong self-perceptions; with the prolonged duration of schooling, maintenance and generalization of resilient behaviours, successful interaction skills, and positive self-perceptions are more easily facilitated (Wang, 1997). These implications have two areas of focus: (a) increasing the understanding of the effects of stress and the potential of resilience behaviours by early childhood educators and (b) developing a philosophy within early childhood classrooms that incorporates teaching strategies of helping young children maintain or restore internal and external equilibrium during times of adverse circumstances (Masten, Best, & Garmezy, 1990).

The first area of implications involves working with early childhood educators to increase their understanding of the effects that life stress has on the development of young children and the potential that resilient behaviours hold. By helping early childhood educators develop a stronger understanding of the importance of social competence and perceived competence in young children, they can focus on fostering successful play tactics and strong self-perceptions in their students.

From the increased awareness of resilient behaviours will come future research and classroom practices. These will involve informed decisions (based on research) regarding the creation of early intervention programs that use existing resources within the lives of children facing adverse circumstances. Also included will be informed decision-making regarding the pairing of young children based on their stress and coping levels, and

critically examining play observation checklists to see if they are positively oriented and incorporate the specific tactics used during social pretend play episodes.

Conclusion

Stress and resilience are complex constructs that warrant further studies to understand them. The consequences of such understandings will yield many benefits in the "psychology of wellness" (Cowen et al., 1990). This notion, coupled with the fact that young children facing many adverse circumstances are more malleable than their older peers, suggests the importance of early childhood professionals promoting more resilient behaviours through increased understanding and more informed teaching practices. If they are more aware of the effect stress has on a young child's development, if they learn more about the protective factors available to the child, and if they can promote resilient behaviours in the area of social and emotional competence through promoting successful play tactics and pairing children with peers who exhibit higher levels of social competence, early childhood professionals will help young children deal with the more stressful events and circumstances they encounter early in their life.

This study has sensitized the researcher to effects that life stress and resilient behaviours have on young children. Although the findings of this study are limited by small sample sizes and limited data collection time, emerging patterns that exhibit both consistencies and inconsistencies in relation to the results of other research on the social pretend play and perceived competencies of young children drive the need for further studies in this area.

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APPENDICES

Appendix A: Letter of Introduction to Childcare Centres

Dear Child Care Centre Supervisor:

As part of the thesis requirements of my Master's of Arts degree in Special Education, I am writing for your support in allowing the Children and Life Stress Project to take place in your child care centre. The purpose of this study is to look at how 30 young children (aged four and five) cope with the stresses of life by looking at their play behaviours and self-perceptions.

I would like to request the participation of your centre in this study. If permission is granted, I will submit a letter of information and a consent form for your approval to send home to the parents/guardians of the four and five year old children attending your child care centre. Of those families who give informed consent, the parents/guardians will be asked to fill out a socio-demographic information questionnaire, a life events and circumstances checklist which assesses how much stress the participating child has experienced, and two scales in which the parents/guardians rate how well their child is doing at school. The early childhood educators/preschool teachers at your centre will also be asked to rate how well the participating children are doing by completing two scales for each child. The parents/guardians will take approximately 20 minutes to complete the forms and a five-dollar honorarium will be offered to parents/guardians who complete all of the forms. The early childhood educators/preschool teachers will take approximately five minutes to complete the two forms for each participating child and a two-dollar honorarium will be offered for every child's forms they complete.

Following the form completion, myself and a fellow graduate student would like to observe the participating children for a total of two 15 minute observations each during free play time in their classes. Additionally, I would like to interview the participating children about their play strategies and their self-perceptions. This interview will take approximately 15 minutes with each child. If permission is granted, the observation and interview times would be scheduled in accordance with what the early childhood educators/preschool teachers feel is best for the participating children.

This study has been given ethics approval from the University of Victoria. This means that after a thorough evaluation of the study, the ethics committee determined that this study is ethical and it will not have any negative effects on any of the participants. Throughout the course of the study, each child's anonymity will be assured through the use of identification numbers and the data collected will be stored in a safe and confidential manner. Additionally, any of the parents who have given consent can withdraw their children from the study at any point. Upon completion of the study, I would be more than willing to give interested parents and early childhood educators/preschool teachers a summary report of the study and any findings.

Thank you very much for considering my proposed study. I would be very happy to give you a more detailed explanation of the study and go through the scales and procedures if you are interested. If you have any questions regarding my request, please contact me, Lori McLeod, at 721-//// or //@uvic.ca or you can contact my supervisor, Dr. Lily Dyson, at 721-////. If I do not hear from you, I will call you a week from today to see if I can answer any questions.

Thank you again for your time and consideration.

Lori McLeod

Appendix B: Parent Information Letter and Consent Form

Children and Life Stress: Patterns in Play and Self-perceptions Information Letter

Dear Parents or Guardians,

I am a graduate student at the University of Victoria in the Faculty of Education. Myself and my supervisor, Dr. Lily Dyson are writing to ask for your child's participation in the Children and Life Stress Study. This research study is being conducted with the approval of the board of directors at the childcare centre.

The purpose of the study is to look at how young children (four and five year olds) cope with the stresses of life by looking at their play behaviours and self-perceptions. To determine how much stress the participating children have experienced, you will be asked to complete a checklist about the stress your child has experienced as well as rating how your child is doing in preschool. The completion of these forms should take approximately 20 minutes. A five-dollar honorarium will be offered to parents who complete all of these forms.

The participating children will be observed as they play for a total of two 15 minute sessions. They will also be interviewed about how they play and asked how they think of their play abilities which will take approximately 15 minutes.

Participation in this study is voluntary. Should you give permission for your child to participate in this study, you are able to withdraw your consent at any time. Additionally, should you give permission for your child to participate, both you and your child have the right to refuse to answer any questions you do not wish to answer. Should you choose to withhold permission or withdraw your child from the study, your decision will not affect you or your child in his/her school in anyway.

All data collected will be held in strict confidence. All participating children will have an identification number which will be used on all data collected. This assures that data of the participating children will remain anonymous during the study and their names will not be attached to any published results. All data collected will be assessed by only myself (the primary researcher), a second coder (fellow graduate student), and Dr. Dyson. As an additional safeguard, the collected data will be kept confidential and stored in a

locked filing cabinet in the primary researcher's house and after five years, it will either be shredded or destroyed. There are no potential risks associated with participating in this study as I will not be intervening in your child's education or trying to influence him/her in any way.

Whether or not you give permission for your child to participate in this study will have no bearing on you or your child's relationship with your child's school. If you do choose to give permission for your child to participate, the director and staff at the child care centre will not have access to any of the information collected in this study.

I am more than willing to make a general summary of the study to all interested parents or guardians at the end of the study. This report would give you the opportunity to see the results of the study and hopefully see it's value.

This study is to be conducted from // to //, 1999. Should you have any questions regarding this project, please contact:

Lori McLeod, primary researcher at 721-//// or ///@uvic.ca

OR

Dr. Lily Dyson, university supervisor and professor at 721-////

Thank you very much for your time and consideration,

Lori McLeod

Dr. Lily Dyson

Children and Life Stress: Patterns in Play and Self-perceptions Consent Form

As stated in the information letter, this study will examine how young children cope with life stress by focusing on their play behaviours and their self-perceptions. Permission for your child to participate is completely voluntary and you can withdraw your permission at any time, without explanation.

Please read the following consent form carefully. Please sign form A if you want to have your child participate or form B if you do not want your child to participate. Please return this to your child's teacher by //, 1999. Thank you very much for your time and consideration.

Please sign either form A (approval) or form B (approval denied).

A: Approval

I, as parent or guardian of the child named below, am giving permission for my child to participate in the Child and Life Stress study. I understand that the purpose of this study is to examine how young children cope with life stress by focusing on their play behaviours and their self-perceptions. I understand that I will be asked to complete a socio-demographic information questionnaire, a life events and circumstances checklist, and two scales rating my child's adjustment. I understand that my child will be observed while playing as well as being interviewed about his/her play and his/her self-perceptions about his/her abilities. I understand that neither my child's name nor the name of the preschool will be used in any reports. I understand that participation is completely voluntary. I understand that I am allowed to withdraw my permission for participation at any point in the study without any consequences. And I understand that completing this study means that I have given consent for my child and myself to take part in this study.

I _____ hereby give permission for my child _____
(parent / guardian's name - printed) (child's name - printed)
to participate in the Child and Life Stress study.

_____ _____
Parent's / Guardian's Signature Today's Date

B: Approval Denied

I am making the decision to <u>not</u> allow my child to participate in the Children and Life Stress study. My signature below indicates that I am <u>not</u> giving permission for my child to participate, having read the information on the previous page.

I _____ do not want my child _____ to
(parent / guardian's name - printed) (child's name - printed)
participate in the Children and Life Stress study.

_____ _____
Parent's / Guardian's Signature Today's Date

Appendix C: Script for Inviting Child Participation

My name is Lori McLeod. I am a teacher who has gone back to school at the University of Victoria to learn more about teaching and children. I would like to come and watch you play in your classroom on two different days. After that, I would like to ask you some questions about how you play and what you think you are good at. By watching you play and talking to you for a little while, I will learn more about children who are your age. It's important for you to know that you don't have to answer any questions that you don't want to. It's also important for you to know that if you say that it is okay for me to come watch you and talk with you and then you change your mind, it's okay for you to tell me that you don't want to participate anymore. Is it okay for me to watch you play and talk with you?

Appendix D: Socio-demographic Questionnaire

Completion of this form is voluntary - ALL RESPONSES ARE CONFIDENTIAL. It is important to explore the characteristics of the children participating in this study to see if their play behaviours and self-perceptions change according to their personal information. This information will be kept anonymous and strictly confidential. Please complete the following ten questions. If you have trouble completing any of these questions, Lori McLeod (the primary researcher) can be contacted for help at 721-//// or //@uvic.ca.
ID Number: _____

1. Birth date of your child: _____
2. Gender of your child: M _____ F _____
3. Your child's ethnic origin:

   White: _____
   Black: _____
   Asian: _____
   Hispanic: _____
   First Nation: _____
   Other (please specify country of origin): _____

4. Birth order of your child (was he/she first born, second born, born last, etc.?): _____
5. Number of parent(s), guardian(s), and other significant adults (e.g., grandparents, aunts, uncles, etc.) living in your child's home: _____
6. Age of parent(s), guardian(s), and other significant adults living with your child in years (e.g., 35 years old): _____
7. Education level of parent(s) or guardian(s) living with your child (1 - has not yet completed high school; 2 - high school graduate; 3 - technical school or college program for 2 years or less; 4 - technical school or college program for 2 to 4 years; 5 - university degree; 6 - post graduate degree): _____ _____
8. Number of siblings your child has and their ages: _____
9. Income level (1 - below $18,000; 2 - below $23,000; 3 - below $28,000; 4 - above $28,000): _____
10. Amount of time you spent interacting (e.g., reading books; playing; talking about preschool; talking about numbers, letters, colours; etc.) with your child last Friday: _____

Appendix E: Life Events and Circumstances Checklist (LEC)

COMPLETION OF THIS FORM IS VOLUNTARY
ALL RESPONSES ARE CONFIDENTIAL

ID Number: _____

Please indicate whether the following events and circumstances have happened in your family and been experienced by your child. If the event or circumstance has happened in your family, circle yes. If the event or circumstance has not happened in your family, circle no. Please Note: "close family member" means a parent, child, grandparent, or relative living in your house. Where it says "When: _____", please write the month and year of the experienced event.

	Did this ever happen?	
1. A close family member was away from home more than five days a month.	yes	no
2. Our family had to move more than two times last year.	yes	no
3. A close family member had a serious medical problem (illness or accident) and was in the hospital. (When: _____)	yes	no
4. A close family member was badly hurt or very sick (but not in the hospital). (When: _____)	yes	no
5. A close family member was arrested or in jail. (When: _____)	yes	no
6. Our family was known to Social Services.	yes	no
7. Our child was upset by family arguments.	yes	no
8. A close family member was robbed. (When: _____)	yes	no
9. A pet to which our child was VERY attached died. (When: _____)	yes	no
10. Our child saw someone get badly hurt. (When: _____)	yes	no
11. A parent lost his/her job or has been unemployed.	yes	no
12. A close family member had an alcohol or drug problem.	yes	no
13. A close family member had serious emotional problems.	yes	no
14. Our family had serious financial problems.	yes	no
15. A close family member had a physical disability.	yes	no
16. Our child has been involved in serious family arguments.	yes	no
17. A parent, brother, or sister died. (When: _____)	yes	no

18. Another relative with whom our child had a VERY CLOSE relationship died. (When: _____)	yes	no
19. Sometimes our family had little food to eat.	yes	no
20. Different people have moved in and out of our home.	yes	no
21. Close family members have had serious arguments with each other.	yes	no
22. Sometimes our child has few clothes to wear.	yes	no
23. Our child has had to take care of others in the family.	yes	no
24. Our child has been in a foster home.	yes	no
25. Parents were separated or divorced. (When: _____)	yes	no
26. Our child had to live with a relative or friend for a while. (When: _____)	yes	no
27. We have been very crowded where we live.	yes	no
28. Our neighbourhood has been unsafe.	yes	no
29. Our child's best friend moved away. (When: _____)	yes	no
30. Our child has been upset by neighbourhood violence.	yes	no
31. Our child has had to deal with people whose behaviour was frightening.	yes	no
32. Many times there has been no one to take care of our child.	yes	no

The items listed above are just some of the stressful things that happen to people. If other things have happened that have been stressful for your family and your child, write them in the spaces below.

33. _____

34. _____

Adapted from Hoyt-Meyers (1993).

Appendix F: Parent Child Rating Scale - Revised (PCRS-R)

ID Number: _____

Your relationship to the child: 1. Mother 2. Father 3. Grandmother
4. Grandfather 5. Aunt 6. Other: _____

Please circle the number that best describes how strongly you agree or disagree with how well the statement describes your child.

MY CHILD ...	Strongly disagree				Strongly agree
1. ... is disruptive at home.	1	2	3	4	5
2. ... ignores teasing.	1	2	3	4	5
3. ... is withdrawn.	1	2	3	4	5
4. ... has many friends.	1	2	3	4	5
5. ... has difficulty sitting still.	1	2	3	4	5
6. ... accepts limits.	1	2	3	4	5
7. ... is shy.	1	2	3	4	5
8. ... is friendly towards peers.	1	2	3	4	5
9. ... disturbs others.	1	2	3	4	5
10. ... copes well with others.	1	2	3	4	5
11. ... worries.	1	2	3	4	5
12. ... makes friends easily.	1	2	3	4	5
13. ... seeks attention.	1	2	3	4	5
14. ... tolerates frustration.	1	2	3	4	5
15. ... is nervous or tense.	1	2	3	4	5
16. ... is well liked by peers.	1	2	3	4	5
17. ... is aggressive with peers.	1	2	3	4	5
18. ... is unhappy, sad.	1	2	3	4	5

Adapted from Hoyt-Meyers (1993).

Appendix G: Parent Adjustment Rating (PAR)

ID Number: _____

Please rate your child on these five items of developmental adjustment by circling the number that best describes him/her (i.e., 1 = does not describe at all, 5 = describes completely).

My child ...	Does not describe				Describes completely
1. ... makes friends easily.	1	2	3	4	5
2. ... is liked by other children his/her age.	1	2	3	4	5
3. ... has a positive sense of self worth.	1	2	3	4	5
4. ... understands what is taught in preschool and is doing well there.	1	2	3	4	5
5. ... behaves appropriately with little adult supervision.	1	2	3	4	5

Adapted from Hoyt-Meyers (1993).

Appendix H: Teacher-Child Rating Scale (T-CRS)

ID Number: _____

Part I: Please rate the child according to the following descriptions:

	Not a Problem	Mild	Moderate	Serious	Very Serious Problem
1. disruptive in class...	1	2	3	4	5
2. withdrawn...	1	2	3	4	5
3. underachieving (not working to ability)...	1	2	3	4	5
4. fidgety, difficulty sitting still...	1	2	3	4	5
5. shy, timid...	1	2	3	4	5
6. poor work habits...	1	2	3	4	5
7. disturbs others while they are working...	1	2	3	4	5
8. anxious, worried...	1	2	3	4	5
9. poor concentration, limited attention span...	1	2	3	4	5
10. constantly seeking attention...	1	2	3	4	5
11. nervous, frightened, tense...	1	2	3	4	5
12. difficulty following directions...	1	2	3	4	5
13. overly aggressive to peers (fights)...	1	2	3	4	5
14. does not express feelings...	1	2	3	4	5
15. poorly motivated to achieve...	1	2	3	4	5
16. defiant, obstinate, stubborn...	1	2	3	4	5
17. unhappy, sad...	1	2	3	4	5
18. learning age appropriate pre-academic skills ... (e.g., colours, alphabet, etc.)	1	2	3	4	5

Adapted from Hoyt-Meyers (1993).

ID Number: _____

Part II: Please rate the following items according to how well they describe the child:

	Not at All	A Little	Moderate Well	Well	Very Well
1. accepts things are not going his/her way...	1	2	3	4	5
2. defends own views under group pressure..	1	2	3	4	5
3. completes work...	1	2	3	4	5
4. has many friends (3 or more) ...	1	2	3	4	5
5. ignores teasing...	1	2	3	4	5
6. comfortable as a leader...	1	2	3	4	5
7. well organized...	1	2	3	4	5
8. friendly toward peers...	1	2	3	4	5
9. accepts personal limits ...	1	2	3	4	5
10. participates in class discussions...	1	2	3	4	5
11. functions well even with distractions...	1	2	3	4	5
12. makes friends easily...	1	2	3	4	5
13. copes well with failure...	1	2	3	4	5
14. expresses ideas willingly...	1	2	3	4	5
15. works well without adult supervision...	1	2	3	4	5
16. classmates wish to sit near this child...	1	2	3	4	5
17. tolerates frustration...	1	2	3	4	5
18. questions rules that seem unfair/unclear..	1	2	3	4	5
19. a self-starter...	1	2	3	4	5
20. well liked by classmates...	1	2	3	4	5

Adapted from Hoyt-Meyers (1993).

Appendix I: Categories for Coding Structural Components of Play

1. **Social exchanges not including social pretend play:**
   - Social exchanges are defined as beginning "...when the target child joined or was joined by another child in play. The episodes terminated when the target child left the play area or was left alone in the play area" (Lieber, 1993, p. 151-52).
   - Examples of social exchanges include functional play such as exploring an object with another child (e.g., "this ball bounces really high), constructive play such as building a sand castle with another child, playing games with rules (e.g., Memory), or discussing a favourite cartoon seen on television that day, ALL WITHOUT REFERENCE TO NONLITERAL OR SYMBOLIC PLAY.
2. **Social exchange with a teacher.**
3. **Episodes of social pretend play:**
   - Social pretend play is defined as social exchanges that have nonliteral or symbolic materials integrated into the interactions (Hughes & Unger, 1989). To more clearly define this, dramatic play occurs when a child behaves as if he/she is somebody or something else and social pretend play occurs when this child interacts with at least one other child, verbally and through actions, as he/she behaves like somebody or something else (Smilansky, 1990).
   - Examples of social pretend dialogue may include "Let's pretend ..." or "I'm the daddy and you're the daughter".
4. **Other play:**
   - Other play may include functional, constructive, or dramatic play that does not include social exchanges with other children.

* Attempts at play are to be included and coded as either social exchanges or social pretend play.

Appendix J: Categories for Coding Stages of Social Pretend Play and Specific Play Tactics

Adapted Version of Goncu's Framework Indicating Stages and Strategies of Social Symbolic Play

Stage 1: Entering Into a Playgroup - becoming a member of a play group.

1. Indirect strategies:
    a) nonverbal entry - entering area where play is underway without verbal marking
    b) variant of behaviour - entering area where play is underway and producing a similar behaviour to that underway
    c) offering of object - entering area where play is underway and offering an object/gift to one or more participants
    d) comment - entering area where play is underway and commenting on the ongoing play
    e) other
2. Direct strategies:
    a) request for access - entering area where play is underway and verbally requesting permission for access
    b) questioning - entering area where play is underway and asking a question regarding the play
    c) greeting - entering area where play is underway and verbally greeting one or more participants
    d) suggest other activity - entering area where play is underway and asking participants to engage in other activity
    e) reference to adult authority - entering into area where play is underway and producing verbal reference to adult authority or rules regarding access to play area
    f) other

3. Disruptive strategies:
    a) disruptive entry - entering area where play is underway and producing behaviour that physically disrupts ongoing activity
    b) claim on area or object - entering area where episode is underway and verbally making claim on area or object in area
    c) other

Stage 2: Initiation of Social Symbolic Play - transition from the non-pretend mode to the pretend mode.

1. Start playing - immediate initiation of role enactment
2. Discussion of role before enactment - children discuss role prior to social symbolic play

Stage 3: Maintenance of Social Symbolic Play - planning and expanding social pretend play.

1. Turns of dialogue involved in play theme (count the frequency of turns taken)
2. Examine type of communication used (i.e., questions, agreeing with peers)

Stage 4: Termination of Social Symbolic Play – how the play episode ends.

1. Verbal description - verbally describing termination prior to or during withdrawal from area
2. Ritual farewell - verbally producing ritual farewell as a marker of termination prior to or during withdrawal from area
3. Unmarked with later return - unmarked withdrawal from area with later return to ongoing activity
4. Unmarked without return - unmarked withdrawal from area with no subsequent return
5. Other

Taken from Lieber (1993) pp. 152.

* Things to consider: note if entry is initiated by other children; not every episode of pretend play involves all four stages (Goncu, 1987); episodes don't always unfold in a sequential fashion and sometimes two phases may occur at the same time (Goncu, 1987); and episodes may end before they begin (Goncu, 1987).

Appendix K: Categories for Coding Outcomes of Play Tactics Used

1. **Positive outcomes:**
   - Tactic used results in sustained positive play
   - Tactic used leads to productive dialogue between the participating children

2. **Negative outcomes:**
   - Tactics used result in disrupted play
   - Tactics used result in disagreements or fights

3. **No effects:**
   - Tactics used did not change the play situation

Appendix L: Play Tactics Interview

ID Number: _____

1. Do you like to play? Why or why not?

2. Where do you like to play? Why?

3. What do you like to play? Why?

4. Do you like to play alone (by yourself) or with other children? Why?

5. How do you start playing with someone?

6. What do you do if you want to play with something that someone else is playing with? Why? (Example: If your friend is playing with the ball you want, what do you do?)

7. What do you do when you don't want other people to play with you? Why? (Example: If you are playing and another child wants to play with you and you don't want to play with them to, what would you do?)

8. What do you have to do to be good at playing? Why?

Appendix M: The Pictorial Scale of Perceived Competence and Social Acceptance for Young Children Scoring Sheet - Male and Female

ID Number: _____

	Cognitive Competence	Peer Acceptance	Physical Competence
1. Easy/hard to do puzzles	1. _____		
2. Friends to play with		2. _____	
3. Hard/easy to swing			3. _____
5. Knows a lot in school	5. _____		
6. Others share		6. _____	
7. Easy/hard to climb			7. _____
9. Knows colours	9. _____		
10. Friends to play games with		10. _____	
11. Hard/easy to ties shoes			11. _____
13. Easy/hard to count	13. _____		
14. Has friends on the playground		14. _____	
15. Easy/hard to skip			15. _____
17. Knows letters	17. _____		
18. Gets asked to play by others		18. _____	
19. Can't/can run fast			19. _____
21. Knows first letter of name	21. _____		
22. Invited to friend's house		22. _____	
23. Hard/easy to hop on one foot			23. _____
Subscale Total	_____	_____	_____
Subscale Mean (divided by six)	_____	_____	_____

Adapted from Harter & Pike (1984).

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