

Wilfrid Laurier University

Scholars Commons @ Laurier

---

Theses and Dissertations (Comprehensive)

---

1989

## Stress, social support and parental behavior

Mila M. Buset

*Wilfrid Laurier University*

Follow this and additional works at: <https://scholars.wlu.ca/etd>



Part of the [Behavior and Behavior Mechanisms Commons](#)

---

### Recommended Citation

Buset, Mila M., "Stress, social support and parental behavior" (1989). *Theses and Dissertations (Comprehensive)*. 543.

<https://scholars.wlu.ca/etd/543>

This Thesis is brought to you for free and open access by Scholars Commons @ Laurier. It has been accepted for inclusion in Theses and Dissertations (Comprehensive) by an authorized administrator of Scholars Commons @ Laurier. For more information, please contact [scholarscommons@wlu.ca](mailto:scholarscommons@wlu.ca).



National Library  
of Canada

Bibliothèque nationale  
du Canada

Canadian Theses Service

Service des thèses canadiennes

Ottawa, Canada  
K1A 0N4

## NOTICE

The quality of this microform is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us an inferior photocopy.

Reproduction in full or in part of this microform is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30, and subsequent amendments.

## AVIS

La qualité de cette microforme dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de qualité inférieure.

La reproduction, même partielle, de cette microforme est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30, et ses amendements subséquents.

**Stress, Social Support and Parental Behavior**

**By**

**Mila M. Buset**

**Bachelor of Arts, University of Windsor, 1986**

**THESIS**

**Submitted to the Department of Psychology  
in partial fulfillment of the requirements  
for the Master of Arts degree.  
Wilfrid Laurier University  
1989**

**© Mila M. Buset 1988**

Permission has been granted to the National Library of Canada to microfilm this thesis and to lend or sell copies of the film.

The author (copyright owner) has reserved other publication rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without his/her written permission.

L'autorisation a été accordée à la Bibliothèque nationale du Canada de microfilmer cette thèse et de prêter ou de vendre des exemplaires du film.

L'auteur (titulaire du droit d'auteur) se réserve les autres droits de publication; ni la thèse ni de longs extraits de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation écrite.

ISBN 0-315-50087-5

## ABSTRACT

The present study investigated the relationship between stress, social support and parenting behavior. Eighty-six mothers who had a child enrolled in a daycare center in the Kitchener-Waterloo region volunteered for this study. Participants completed four questionnaires: A Demographic Sheet, the Perceived Stress Scale (Cohen, Kamarck & Mermelstein, 1983), the Interpersonal Support Evaluation List (Cohen and Hoberman, 1983), and the Parent Behavior Scale (which was specifically constructed for this study). The overall support scale and the four subscales (tangible, belonging, appraisal, and self-esteem support) were used to determine whether the perceived availability of social support is directly related to parenting behavior (main effect) or whether it moderates the effects of stress on parenting behavior (buffering effect). The results showed that social support was strongly positively related to Positive Parental Behavior. In addition, stress was strongly associated with Negative Parental Behavior. No stress by support interactions were found; hence, the buffering hypothesis was not supported. However, evidence supporting a two-factor model was found, in that social support correlated with Positive Parental Behavior, but not Negative; and Perceived Stress correlated positively with Negative Parental Behavior but not Positive. Limitations of the study, future recommendations and suggestions for interventions utilizing social support with parents in overcoming stress are discussed.

## ACKNOWLEDGEMENTS

First, I would like to thank my advisor, Mark Pancer, for his guidance, patience, sense of humor and relaxed approach throughout this project. In addition I would like to thank my committee members Geoff Nelson and Michael Pratt. I thank Geoff for his insight and invaluable contribution of the first draft of this document as well as his assistance in the statistical analyses. I appreciate Mike's constructive criticism and his excellent suggestions which dramatically improved the original version of this manuscript. I would also like to acknowledge Fred Gloade for helping me with my statistical analyses and for his superb ability in explaining statistics in a simple and straightforward manner. In addition, I would like to thank Stephen Crawley, a close confidant, for entering data, editing several drafts of this paper, providing unending emotional support and most importantly for believing in my ability to complete this project even when I felt doubtful. I cannot forget the encouragement, support and empathy I received from my peers, friends and office mates in 12 Bricker who understand only too well the experience of undertaking a thesis. Finally, I would like to extend a special thanks to all the parents who participated in this study and made it all possible.

## TABLE OF CONTENTS

1. INTRODUCTION	
2. LITERATURE REVIEW	
Stress Defined . . . . .	7
Environmental perspective . . . . .	8
Phenomenological perspective . . . . .	9
Social Support . . . . .	11
What is social support? . . . . .	11
Structural and functional dimensions . . . . .	12
How Does Social Support Relate to Emotional Distress? . . . .	13
When is the buffering effect observed? . . . . .	14
Two-factor theory of emotional well-being . . . . .	16
Parental Stressors and Social Support . . . . .	18
Purpose and Hypotheses . . . . .	21
2. METHOD	
Participants and Procedure . . . . .	22
Measures . . . . .	25
3. RESULTS	
Preliminary Analyses . . . . .	33
Testing the Hypotheses . . . . .	35
4. DISCUSSION . . . . .	49
5. APPENDIX A - Telephone Script to Daycare Centres . . . . .	65
6. APPENDIX B - Letter to Parents . . . . .	66
7. APPENDIX C - Demographic Questionnaire . . . . .	67
8. APPENDIX D - Interpersonal Support Evaluation List . . . . .	68
9. APPENDIX E - Perceived Stress Scale . . . . .	71
10. APPENDIX F - Parent Behavior Scale . . . . .	73

## LIST OF TABLES

- TABLE 1: Characteristics of Mothers Studied.
- TABLE 2: Eigenvalues and Percentage of Variance of the Eleven Factors Which Emerged from the Parent Behavior Scale.
- TABLE 3: The Items and Their Loadings Which Compose the Two Main Factors: Positive and Negative Parental Behavior.
- TABLE 4: A Comparison of the Means and Standard Deviations of Four Samples on the Perceived Stress Scale.
- TABLE 5: Means and Standard Deviations of all the Variables used in the study.
- TABLE 6: Correlations Between Social Support and Positive and Negative Parental Behavior.
- TABLE 7: Interaction Effects Model of Overall Support and Perceived Stress on Positive and Negative Parental Behavior.
- TABLE 8: Main Effects Model of Overall Support and Perceived Stress on Positive and Negative Parental Behavior.
- TABLE 9: Interaction Effects Models of the Four Social Support Subscales and Perceived Stress on Positive Parental Behavior.
- TABLE 10: Main Effects Models of the Four Social Support Subscales and Perceived Stress on Positive Parental Behavior.
- TABLE 11: Interaction Effects Models of the Four Social Support Subscales and Perceived Stress on Negative Parental Behavior.
- TABLE 12: Main Effects Models of the Four Social Support Subscales and Perceived Stress on Negative Parental Behavior.



### Stress, Social Support and Parental Behavior

Recently, there has been an abundance of research dedicated to the study of stress and stress-moderating variables. Tremendous advances have been made from the earlier work on the nature and link between stress, social support and emotional distress. Researchers are now interested in how social support moderates the effects of stress and distress and how this knowledge can be translated into developing practical interventions in the community. Stress and social support have become major areas of inquiry in community psychology as is evident by the profusion of studies being published as well as the increase in the number of intervention programs that use social support to prevent emotional and physical disorders.

The present investigation attempted to determine whether main effects or interaction effects of social support would be found in a population of parents. The current study differs from previous investigations of stress and social support, in that perceived stress as opposed to stressful life events is measured, and perceived availability of social support rather than number of social supports or source of support, is assessed. Another notable difference in the present study is the dependent variable of parental behavior. Other studies which have measured the amount of stress and social support for mothers have investigated mother-child attachment (Crockenberg, 1981), parental knowledge

of child-rearing issues (Reis, Barbara-Stein & Bennett, 1986), and child abuse (Powell, 1979). In contrast the current research attempts to investigate behaviors that parents direct towards their children.

The paper begins with a definition of stress and then examines the physical and psychological reactions to stress. Then the two opposing schools of thought (the environmental and phenomenological perspective) regarding stress are presented in detail. Social support is then defined and the two methods (main versus buffering effects) which explain different ways in which social support is thought to be related to distress are presented. Finally, the concepts of stress and social support are applied to the topic of this thesis: parenting behavior.

### Stress Defined

Stress is a process in which an individual responds to an environmental event that is potentially threatening or dangerous. The threatening environmental event is called a stressor, which may produce a stress reaction. Often this stress reaction is indicated by emotional distress such as anxiety, fear or frustration. Gatchel and Baum (1983) state that:

Stress may be viewed as one process by which stressors cause health related change. When stressors occur, a complex physiological and psychological response is evoked, and it is this response that in many cases is used to explain negative outcomes. (p.40)

The process of perceiving a threat, coping with it, and adapting to it frequently accompanies situations in which we need to deal with change. Whether changes are minor or major, a certain degree of adaptation is required. Gatchel and Baum simply state that "stress involves environmental and psychological events, interpretations of them and behavioral and physiological responses."(p.41)

There are two prominent schools of thought which have developed over the years on the issue of stress. One theory claims that an individual feels stressed because there are certain environmental events or changes that are inherently stressful (Holmes & Rahe, 1967). The other theory maintains that an event will be experienced as stressful only if it is perceived as presenting some sort of danger, and if the person feels that he or she does not have the necessary coping skills to satisfactorily manage the situation (Lazarus, 1966; Lazarus, 1980; Lazarus & Folkman, 1984; Lazarus & Launier, 1978). Thus, one theory proposes an environmental perspective while the other emphasizes a phenomenological perspective.

Environmental perspective. Researchers have attempted to demonstrate that stressful life events play a part in the development of mental and physical disorders (Dohrenwend & Dohrenwend, 1974). In fact, it has been found that individuals who report a high number of stressful life events report high levels of psychological symptoms and physical illness (Holmes & Rahe, 1967; Lowenthal & Haven, 1968). Several studies have

reported a positive correlation between stressful life events and the onset of a host of physical and psychological disorders such as heart disease, hypertension, cancer, depression and anxiety (Cooper & Marshall, 1979; Henry & Cassel, 1969; Sklar & Anisman, 1981; Cohen & Syme, 1985). Reactions to stressful situations may manifest themselves through cognitive distortions, emotional responses and helplessness (Taylor, 1986; Selye, 1976). These investigations are just a few of the many studies which have observed a positive relationship between stressful life events and physiological and psychological symptomatology. Holmes and Rahe (1967) developed the Social Readjustment Rating Scale (SRRS) which measures potentially stressful life events. Holmes and Masuda (1974) report that life change measured by the SRRS is significantly related to the time of disease onset.

The SRRS, however, has received considerable criticism (Hough, Fairbank, & Garcia, 1976; Kasl, 1983; Tausig, 1982) with regard to its ability to predict illness. One may conclude that environmental events can precipitate some physical and psychological disorders.

Phenomenological perspective. More recently, researchers have emphasized the phenomenological aspects of the stress experience, maintaining that a cognitive component should be considered in addition to the environmental stressor. Lazarus (1966) asserted that events in and of themselves are not stressful; rather it is the individual's appraisal of the event that determines whether it is stressful or not. Lazarus (1980)

maintains that stress cannot be understood merely in terms of the stressful event. The individual's interpretation of the event defines the event as either stressful or benign.

The critical component of the stress appraisal process is the individual's assessment of his or her resources to adequately adjust to the life change. Stress then is a result of the person's perception of the environmental events and his or her assessment of the resources he or she has to adequately handle the situation. For example, if an individual perceives that his or her resources will not sufficiently meet the demands of the environmental stressor, he or she may experience a fair amount of stress. Therefore, it seems that when an individual feels stressed it is a result of his or her perception of the event as well as his or her ability to satisfactorily cope with the situation.

In summary, we have learned from Lazarus' research that events are not necessarily inherently stressful; rather, it is the person's interpretation of the event, and his or her assessment of available resources to conquer the event, that defines it as stressful or not. Yet researchers also maintain that a stress reaction has the potential to cause psychological and physical disorders. Thus, the question remains, what types of coping responses are necessary to diminish a stressful experience and prevent some mental and physical disorders that are often the byproducts of a stressful experience?

### Social Support

An abundance of literature exists to support the hypothesis that social support reduces the negative emotional distress caused by stressful life events (Cassel, 1976; Frydman, 1981; Lin, Ensel, Simeone, & Kuo, 1979; Warheit, 1979). Researchers have investigated how social support offsets both physical and psychological disorders deriving from stressful life events. Many investigators report differences between individuals with strong social supports and those with few social supports on depression, physical disorders and mortality rate (Leavy, 1983; Cobb, 1976; Nuckolls, Cassel & Kaplan, 1972; Berkman & Syme, 1979).

What is social support? Several researchers have noted a considerable amount of variability in definitions of social support (Barrera, 1981; Cohen & McKay, 1983; Leavy, 1983; & Thoits, 1981). Thoits (1981) maintains that social support studies lack a conceptual and operational definition of the concept which may explain the inconsistency in the literature on social support. Thus it seems that one problem with the social support literature is the use of ambiguous definitions among researchers. Thoits, however, acknowledges House's (1981) definition which concretely defines several types of social support. Others (Antonucci & Depner 1982; Cohen & Wills 1985) have defined social support in a similar fashion. House suggests that social support is an interaction of four types of support.

- 1) Emotional support is knowing one is loved and cared for unconditionally.
- 2) Instrumental support, also known as tangible support, involves helping others with tasks, work and financial support.
- 3) Informational support means providing information, help with problem solving, advice or feedback.
- 4) Socializing or belonging support involves information that increases a person's sense of belonging.

Thus, social support is not a unidimensional concept, but instead is perceived as being multidimensional such that various dimensions of social support must be considered in order to fully understand the role it plays in relation to the impact of life changes.

Structural and functional dimensions. When measuring social support one must be cognizant of the structural and functional dimensions of the concept. Structural components assess the size of the support system (e.g., number of supportive relationships), but do not assess the function of the support. Structural measures usually assess objective characteristics of one's social support system, while functional measures tap one's perception of the availability, adequacy and satisfaction with social supports. Some investigators (Cohen & Wills, 1985) believe that structural measures do not provide information that will enable researchers to understand the true benefits of social supports, and in fact, narrow the utility of social supports. "But merely counting people and computing ratios concerning density and other

structural variables does not touch the depth of the concept 'support'" (Leavy, 1983, p. 5). Functional measures, on the other hand, define the type of support and the function that support has for the individual. Functional measures tell us exactly what form the help takes (e.g., material aid, feelings of belonging).

#### How Does Social Support Relate to Emotional Distress?

Cohen and Wills (1985) assert that there are two different means through which social support has beneficial effects on emotional well-being: buffering and main effects. The buffering hypothesis states that individuals with strong social supports will adjust better to major life changes than those with few or no support systems. Several investigations support the buffering hypothesis (Eaton, 1978; Henderson, 1981; Henderson, Duncan-Jones, Byrne, & Scott, 1980; Kessler & Essex, 1982; Thoits, 1982; Sandler, 1980). Statistically, the buffering hypothesis is observed in terms of a stress by support interaction. This means that an individual experiencing a high level of stress who has a strong social support system will manifest less psychological and physical distress than one who has few social resources. A pure buffering effect is observed when individuals under low and high support differ significantly only under high stress. Thus it seems that buffering as an effect should be observed only under highly stressful conditions (Eckenrode and Gore 1981).



The main or direct effect hypothesis maintains that social supports are beneficial whether or not individuals are experiencing stress. "A direct effect hypothesis argues that support enhances health and well-being irrespective of stress level." (Cohen & Syme, 1985, p.6). The theory behind this hypothesis is that, as a member of a cohesive supportive system, the individual feels a sense of security and belonging which adds to his or her overall well-being (Cohen & Wills, 1985). This increased sense of security and belonging and the knowledge that one is integrated into a social network could reduce one's susceptibility to physical illness. A main effect for support but no support by stress interaction, is evidence supporting the direct effect. Many investigators have reported main effects for support (Aneshensel & Stone 1982; Bell, Leroy, & Stephenson, 1982; Frydman, 1981; Lin, Ensel, Simeone & Kuo, 1979).

When is the buffering effect observed? Researchers have reported that only specific and appropriate functional measures will show buffering effects. Cohen and Wills (1985) maintain that structural measures of social support, such as the size of the support system, will not produce buffering effects, whereas studies which use specific functional measures provide consistent evidence of the buffering model of support. In addition, it seems that buffering effects are most often observed when support is provided by a spouse or close confidante (Brown, Bhrolchain, & Harris, 1975; Eaton, 1978; Husaini, Neff, Newbrough & Moore, 1982; Kessler & Essex, 1982; Paykel, Emms, Fletcher & Rossaby,

1980). Several variables have been identified that may influence whether buffering effects will or will not be found. These factors are: when social support is measured, one's level of stress, the type of measure used to assess social support, and the individual's ability to mobilize or utilize social support systems (Barrera, 1986; Cohen & Hoberman, 1983; Gottlieb, 1981; Thoits, 1982).

Cohen and McKay (1983) maintain that buffering effects will be observed only when the support provided is related to the stressors faced by the person. They called this the "specificity hypothesis". Cohen and McKay claim that if there is no congruence between the available support and coping requirements, buffering will not occur. Hence, the support provided will not moderate the psychological and physical effects caused by life changes. Others (Cohen & Wills, 1985; Pearlin, Lieberman, Menaghan & Mullen, 1981) support the specificity hypothesis.

Tetzloff and Barrera (1987) tested Cohen and McKay's "specificity hypothesis". They state that if the "specificity hypothesis" holds true then global measures of stress and social support which are typically used to assess buffering effects would prove to be inadequate for observing stress by social support interactions. These authors interviewed 73 separated mothers in order to test Cohen and McKay's theory. Three types of stressors have been identified among this population: economic/practical, social/interpersonal and parenting. The three types of support which would "match" or buffer these

stressors would be tangible, social, and parenting support, respectively. The criteria or dependent variables were psychological and depressive symptomatology. An interaction was observed for parental stress and parental support. The "specificity hypothesis" did not hold true for either social or tangible stress.

Two factor theory of emotional well-being. In addition to the buffering and main effects models, an alternative model has been proposed to explain how social support relates to emotional well-being. The two-factor theory of emotional well-being states that "emotional well-being is a balance of positive affect (or satisfaction) and negative affect (or dissatisfaction)" (Nelson, under review). Positive affect and negative affect are two independent factors that have been considered to be part of one's emotional experience (Watson, 1988). Socializing has been found to correlate positively with positive affect but not with negative affect. Furthermore, negative affect and perceived stress correlate significantly, but perceived stress and positive affect (Diener & Emmons, are not strongly related to one another (Diener & Emmons, 1985; Watson, 1988; Zautra & Reich, 1983). Thus it seems that positive affect is influenced by positive factors and negative affect is influenced by negative factors (Zautra & Reich, 1983).

Nelson (under review) examined the relationship between life strains, social support and positive and negative affect using the two-factor theory. Applying the two-factor theory in relation to life strains and social support he stated that social support and positive affect should be related, but negative affect and social support should not be related. In addition he hypothesized that life strains and negative affect would be related, but positive affect would not. Nelson found that, as expected, negative affect and life strains were significantly correlated. In addition, however, life strains were also correlated (inversely) with positive affect. Therefore, his first hypothesis was only partially supported. Positive affect and social support were significantly positively correlated, supporting the two-factor theory.

In the present study Positive and Negative Behavior were studied. However, some questions in the Parent Behavior Scale seem to tap parent's feelings as well. For example, "Been happy being a parent?" and "Been angry with your child?" are two items that ask about the parent's feelings. It seems that behavior and affect are not two distinctly different constructs, but that they are interrelated. Therefore, it seemed reasonable to apply the two-factor theory to this study, which measured Positive and Negative Parental Behavior.

In conclusion, it seems reasonable to consider the two-factor theory as a useful method in determining how social support relates to emotional well-being.

### Parental Stressors and Social Supports

Very little is known about the relationship between stress and parenting and even less evidence is available on the moderating variables that are most effective in dealing with that stress. Recently, however, there has been an increase in the literature on parental stress.

There is emerging evidence of the influential effects of stress on the parent-child relationship. The areas most commonly cited in the literature as stressful to parents are marital discord, occupational stress and economic stress (Belsky, 1981; Garbarino, 1976; Elder, Nguyen & Aushalom, 1985). Belsky (1981) reported that when the marital relationship experiences difficulties (e.g., communication problems, lack of satisfaction), that children suffer as well.

Parental stress literature provides specific examples of environmental stressors (e.g., work and marital discord) which negatively affect a parent's behavior. However, the literature fails to report the effects of parents' perceptions of stress in their own lives. Lazarus (1980) contends that it is one's appraisal of stress, not the environmental event itself, that determines how one responds to stressors. Therefore, a measure which assesses a parent's perceived stress may be a better predictor of outcomes than stressful life events because it provides a direct measure of the level of stress. In other parenting studies, stress is measured by the number of major life events or the degree of physical or psychological distress.

Objective measures of stress make the assumption that events are the only cause of negative reactions. This hypothesis ignores the cognitive aspect of a person's perception of an environmental event. In the present study (based on findings from previous literature) stress will be assessed as the parent's perception of the amount of stress they have experienced in the last month.

Is social support beneficial in moderating negative stress reactions in parents? The few studies that have explored the joint effects of stress and social support on parental functioning have found that social support helps prevent stressful reactions which in turn benefits the parental experience (Belsky, 1981; Belsky, 1984; Cochran & Brassard, 1979; Frydman, 1981; Powell, 1979). Crockenberg (1981) found social support was a good predictor of secure mother-child attachment. Mothers with high social support had babies who were less resistant and irritable compared to low social support mothers, whose babies more often demonstrated anxious attachment. Crockenberg concludes that the suitability of the mothers' social support is related to the security of mother-child attachment. Crnic, Greenberg, Ragozin, Robinson, and Bashan (1983) studied the effect of stress and various types of emotional social support on maternal attitudes and mother-infant behavior with groups of premature and full-term infants. They found that stressed mothers have less positive feelings toward their infants and are less likely to respond to infant cues. Mothers with low stress, and high levels of social support reported experiencing

more enjoyment with their infant and in their parental role. Social support was found to have a buffering effect only under certain conditions. For instance, intimate support was one variable that acted as a buffer for mothers' life satisfaction, but not parenting attitudes or behavior.

In conclusion, research on parental social support has found that when mothers are satisfied with the emotional and parenting supports they receive, their interactions with their children are more positive than when they are dissatisfied with their support.

### Purpose and Hypotheses

The purpose of the present investigation was to determine the relationship between stress, social support, and parental behavior. The following hypotheses have been developed from the review of the stress and social support literature.

1. Stress will be positively correlated with negative parental behavior, but not positive parental behavior.
2. Social support will be positively correlated with positive parental behavior, but not negative parental behavior.
3. Social support will buffer the effects of stress on parental behavior. This means that the correlation between stress and parental behavior will be stronger for those low in support, compared with those high in support.



## Method

### Participants and Procedure

Eighty-six mothers, from both single and two-parent households, of preschool children in the Kitchener-Waterloo region participated in this study. Mothers were contacted through various day care centers in the area (see Table 1 for characteristics of the mothers in the study).

Prior to completing the three questionnaires, mothers completed a demographic questionnaire (see Appendix C) which asked them to indicate the number of children they had, the age and sex of each of their children, their date of birth, marital status, current occupation, and the highest level of education completed. Table 1 contains a summary of characteristics of the parents in this study.

**Table 1**  
**Characteristics of Mothers Studied**

<u>Characteristics</u>	<u>Percentage</u>
<b>Number of Children:</b>	
One	5.8
Two	52.3
Three	27.9
Four	9.3
No Reply	4.7
<b>Mother's Age:</b>	
23-27	6.0
28-32	38.0
33-37	39.0
38-42	13.0
No Reply	4.0
<b>Marital Status:</b>	
Married	93.0
Divorced	2.3
Single	1.2
Common-law	0.0
No Reply	3.5
<b>Occupation:</b>	
Professional	25.0
Non-Professional	70.0
No Reply	5.0
<b>Highest Educational Level:</b>	
Elementary School	3.0
High School Diploma	33.0
College	28.0
3-4 Years University	24.0
5-6 Years University	6.0
7+ Years University	1.0
No Reply	5.0

The modal number of children per household was two; the age range was from two to 17. The mean age of the 86 mothers in the study was 33. Marital status was divided into four categories: married, divorced, single and common-law. More than 90% of the mothers were married, less than 3% were either single or divorced and none of the mothers were living common-law. Occupation was divided into two categories: professional and nonprofessional. The professional category covered occupations such as: teacher, nurse, secretary, bank teller, and doctor. The non-professional consisted of student, hairdresser, waitress and housewife (Blishen & McRoberts, 1976). Of the 86 respondents, 22 were professional, 60 were nonprofessional and four did not respond to the question. Finally, mothers were asked to indicate the highest level of education they had completed. Categories ranged from having completed elementary school, high school, college, 3-4 years university, 5-6 years university and lastly 7+ years of university. The majority of mothers reported completing a high school education or higher.

A list of daycare facilities in the Kitchener- Waterloo area was compiled. These consisted of cooperatives, privately owned and university-operated centres. The director of each facility was contacted by telephone and had the purpose of the study explained to him or her. Permission to administer questionnaires to the parents of the daycare and elementary school was also requested (Appendix A). All the parents received a large manilla envelope containing a cover letter explaining who the researcher

was, the purpose of the study, a request for their participation, and four questionnaires: a Demographic Questionnaire, a modified version of the Interpersonal Support Evaluation List, a Perceived Stress Scale, and a Parental Behavior Scale. Each parent was instructed to return the completed questionnaires with his or her child. The daycare director collected all returned envelopes. At the end of each week the researcher collected the envelopes. Two hundred questionnaires were administered and eighty-six were returned, yielding a response rate of 43%. Once the data were analyzed, all participants who requested feedback were mailed a summary of the findings.

### Measures

Interpersonal Support Evaluation List (ISEL). The ISEL, constructed by Cohen and Hoberman (1983), consists of 48 statements; half of the items reflect positive aspects of social relationships (e.g., "I am more satisfied with my life than most people are with theirs"), and the other half are negatively phrased (e.g., "Lately, I often feel lonely, like I don't have anyone to reach out to"). Respondents answer "probably true" or "probably false" to each statement. The ISEL assesses one's perceived availability of four different types of support. The "tangible" subscale assesses material resources; the "self-esteem" subscale measures one's evaluation of self in comparison to others; the "belonging" subscale assesses one's network for socializing; and finally the "appraisal" subscale measures the availability of others to confide in about problems.

The reliabilities of each of the subscales range from .71 to .77 with an overall reliability coefficient of .77. The ISEL was compared with the Inventory of Socially Supportive Behaviors (ISSB), which measures how often individuals have received support in the last month. The ISEL and the ISSB correlated moderately with a coefficient of +.46. Correlations of -.52 and -.64 were obtained between the ISEL and a measure of social anxiety in two samples of college students. A modified version of the ISEL containing 43 of the original 48 items was employed in this study. Five of the original questions from the ISEL were omitted because these questions were designed for college students and did not seem appropriate for a parent sample. There were 10 statements which comprised each of the four subscales of the ISEL. The three additional questions assessed social support related to parenting stress specifically.

Perceived Stress Scale (PSS). The Perceived Stress Scale, developed by Cohen, Kamarck, and Mermelstein (1983), was used to assess parents' perceived level of stress. The scale consists of 14 general questions which measure the degree to which events in one's life, occurring in the last month, are appraised as stressful. Half of the items are positively stated while the remaining seven are presented in a negative fashion. Sample items are as follows:

(Positive Item). "In the last month, how often have you dealt successfully with irritating life hassles?"

(Negative Item). " In the last month, how often have you felt nervous and 'stressed'?"

Participants respond on a five-point Likert type scale, ranging from "never" to "very often." A total score is obtained by summing across all 14 items (See Appendix E).

Cohen et al. (1983) administered the questionnaires to three different groups. Two were composed of college students and the third group consisted of individuals in a smoking-cessation program. A test-retest reliability study over a two-day time interval was conducted on a separate group of 82 college students. A correlation of .85 was obtained. The coefficient alphas obtained ranged from .84 to .86. To assess the validity of the PSS, Cohen et al. (1983) correlated PSS scores with life event scores, depressive and physical symptomatology, utilization of health services, social anxiety and smoking - reduction maintenance. For the two college samples and the smoking cessation participants, correlations of .52, .65, and .70 were found between PSS scores and a measure of depression (the Centre for Epidemiologic Studies Depression Scale, CES-D and a measure of physical symptomatology (the Inventory of Physical Symptoms, CHIPS). PSS scores were more strongly correlated with health outcomes than were stressful life event scores which were measured by the College Student Life Event Scale (CSLES). Also, social anxiety was positively correlated with perceived stress.

Parent Behavior Scale. The parent behavior scale was developed specifically for the present study. After an exhaustive search of parental measures, none of which the author thought were suitable for this study, the author and another researcher constructed a new measure. Questions were derived from a variety of sources. Similar parenting questionnaires, which measure parental warmth and nurturance as well as parental restrictiveness, contain items that were appropriate for this scale. Also, questions were developed from the author's and researcher's knowledge of and experience with parental research. The preliminary scale had a total of 48 items. The scale was refined and reduced to 38 items. Items were selected for clarity and non-redundancy. Participants respond on a five-point Likert type scale, ranging from "never" to "very often." (One equals never, two equals almost never, three equals sometimes, four equals fairly often, and five equals often). Eighteen items are positively phrased and 20 are negatively phrased. For the purposes of this paper "positive" is defined as nurturing qualities such as hugging, talking, listening, loving, encouraging, and properly disciplining one's child. Sample items are as follows:

Positive Item: "In the last month how often have you consoled your child when he or she was upset about something?"

Negative Item: "In the last month how often have you scolded your child for something that wasn't his or her fault?"

A principal components factor analysis with a varimax rotation of the 38-item Parent Behavior Scale yielded 11 factors. Of the 11 factors, the first two accounted for 40% of the variance and were used in subsequent analyses. Each of the remaining nine factors accounted for five percent or less and was not included. (See Table 2 for the eigenvalues and percentage of variance for each of the 11 factors). The first factor, which explained 25% of the variance, consisted of 11 items. Items loading highly on this factor included, "Praised your child," and "Laughed with your child." The 11 items that had loadings of greater than .50 on this factor were included and the mean of these items was used as the score for the Positive Parental Behavior factor. The possible range of scores was thus from 1.00 to 5.00. The second factor explained 16% of the variance and consisted of six items. Items loading highly on this factor included, "Been angry with your child," and "Yelled at your child." The six items that had loadings of greater than .50 were included and the mean of these items was used as the score for the Negative Parental Behavior factor. The possible range of scores on this factor was 1.00 to 5.00. From the range of scores we can see that there is very little variance in either positive or negative parental behavior. See Table 3 for the items which compose these two major factors.



Table 2

Eigenvalues and Percentage of Variance of the Eleven Factors  
Which Emerged from the Parent Behavior Scale

FACTORS	EIGENVALUE	PERCENTAGE OF VARIANCE
ONE	9.57	25.2
TWO	5.87	15.5
THREE	1.96	5.2
FOUR	1.72	4.5
FIVE	1.56	4.1
SIX	1.38	3.6
SEVEN	1.29	3.4
EIGHT	1.15	3.0
NINE	1.12	3.0
TEN	1.03	2.7
ELEVEN	1.01	2.7
TOTAL		72.9

Table 3

The Items and Their Loadings Which Compose the Two Main Factors:Positive and Negative Parental Behavior

Positive Parental Behavior Factor		Negative Parental Behavior Factor	
<u>Items</u>	<u>Loadings</u>	<u>Items</u>	<u>Loadings</u>
1. Engaged in a fun activity with your child.	.85	1. Been frustrated with your child	.81
2. Played with your child.	.84	2. Disagreed with your child.	.76
3. Did something to make your child happy.	.83	3. Got angry with your child for not listening to you.	.76
4. Laughed with your child.	.78	4. Been angry with your child.	.71
5. Engaged in an activity of your child's choice.	.75	5. Yelled at your child.	.64
6. Spent time with your child.	.73	6. Got angry with your child for taking too long to do something.	.57
7. Praised your child.	.71		
8. Enjoyed your child's company.	.69		
9. Talked to your child.	.64		
10. Been happy being a parent.	.60		
11. Asked your child his/her opinion.	.58		

Alphas of .93 for Positive Parental Behavior and .85 for Negative Parental Behavior were obtained. These high alphas may be due to testing the same sample. Therefore, this test should be conducted on another sample in order to eliminate any biases and to have a comparison group.

In order to determine the relationship between Positive and Negative Parental Behavior a Pearson Product Moment Correlation was obtained. Positive and Negative Parental Behavior were not significantly correlated with one another,  $r = -.13$ ,  $n = 86$ . However, these two dimensions were found to be relatively independent of one another. For the remaining analyses, the dependent variables used were Positive Parental Behavior and Negative Parental Behavior.

## Results

### Preliminary Results

In order to determine the participants' levels of perceived stress, the mean scores and standard deviations of the mothers in this study were compared to the two college samples and the smoking cessation sample in Cohen, Kamarack and Mermelstein's (1983) study. See Table 4 for these scores. As is apparent from Table 4, the mothers in this study scored lower on perceived stress than both the two college samples and the participants in the smoking cessation program. See Table 5 for the means and standard deviations of all the variables used in the study.

Table 4

### A Comparison of the Means and Standard Deviations of Four Samples on the Perceived Stress Scale

Samples	Mean	Standard Deviation
Mothers in present study.	23.00	6.70
Sample 1 (college students)	23.18	7.31
Sample 2 (college students)	23.67	7.79
Sample 3 (participants in a smoking cessation program)	25.00	8.00

Table 5

Means and Standard Deviations of all the Variables used in the Study.

---

Variables	Means	Standard Deviations
Positive Parental Behavior	4.2	.57
Negative Parental Behavior	3.1	.63
Perceived Stress	23.0	6.7
Overall Support	34.4	5.2
Tangible Support	9.4	1.2
Belonging Support	8.7	2.0
Appraisal Support	7.7	1.7
Self-Esteem Support	8.6	1.3

---

### Testing the Hypotheses

Hypothesis #1: Stress will be positively correlated with negative parental behavior, but not positive parental behavior.

To test the first hypothesis, Pearson Product Moment Correlations were calculated between self-reported stress and Positive and Negative Parental Behavior. Perceived Stress has positively correlated with Negative Parental Behavior,  $r=.27$ ,  $n=86$ ,  $p<.05$ . There was a negative correlation between Perceived stress and Positive Parental Behavior,  $r=-.15$ ,  $n=86$ . However, the correlation was not significant.

Hypothesis #2: Social support will be positively correlated with positive parental behavior, but not negative parental behavior.

The second hypothesis dealt with the relationship between the social support dimensions and the two dependent variables - Positive and Negative Parental Behavior. The overall support Scale (ISEL), the four subscales, and Positive Parental Behavior and Negative Parental Behavior are presented in Table 5.

Table 6  
Correlations Between Social Support and Positive  
and Negative Parental Behavior

	Parental Behavior	
	Positive	Negative
Tangible Support	.17	- .14
Belonging Support	.36b	- .09
Appraisal Support	.32b	- .20a
Self-Esteem Support	.19a	- .14
Overall Support Scale (ISEL)	.36b	- .18a

a= $p < .05$

b= $p < .001$

All four social support subscales and the overall support scale were positively correlated with Positive Parental Behavior as hypothesized. The Tangible support subscale was the only one which was not significantly correlated with Positive Parental Behavior. A significant negative correlation was found between the Overall Support Scale and Negative Parental Behavior. However, Appraisal Support was the only subscale which was significantly correlated with Negative Parental Behavior. Thus, the second hypothesis, that social support would be positively related to Positive Parental Behavior, but not Negative Parental Behavior, was partially supported.

In addition to determining how social support correlated with parental behavior, it was also of interest to see how social support correlated with stress. All four support subscales, as well as the Overall Support Scale, were significantly negatively correlated with Perceived Stress. The correlations obtained were  $-.36$  for Tangible Support and Perceived Stress;  $-.38$  for Belonging;  $-.29$  for Appraisal and  $-.49$  for Self-Esteem. The correlation between Overall Support and Perceived Stress was  $-.48$ .



Hypothesis #3: Social support will buffer the effects of stress on positive and negative parental behavior.

Multiple regression analyses were conducted to assess whether there were Stress X Support interactions consistent with the stress- buffering hypothesis. The expected buffering interaction would indicate that social support would offset high levels of stress on positive and negative parental behavior.

Separate multiple regression analyses were computed for the Overall Support Scale and the four ISEL subscales. Perceived Stress and the respective measure of support were entered into the calculations first, followed by the interaction term (i.e., the product of stress and support). First, the interactive model was tested. If the F for the interaction term was significant, then the interaction term was further analysed and if not, then the F for social support was analysed to determine if direct effects were observed. See Table 7 for the interaction effect of the Overall Support Scale and Perceived Stress on Positive and Negative Parental Behavior and Table 8 for any direct effects that were found.

Table 7

Interaction Effects Model of Overall Support and Perceived Stress  
on Positive and Negative Parental Behavior

Criterion	Predictors	B	R Squared	df	F
Positive Parental Behavior	Perceived Stress	.52	.02	1,84	.69
	Overall Support	.08	.13	1,84	2.34
	Interaction Product	-.01	.14	1,84	.64
Negative Parental Behavior	Perceived Stress	.46	.07	1,84	.34
	Overall Support	.01	.08	1,84	.02
	Interaction Product	-.01	.08	1,84	.07

Table 8

Main Effects Model of Overall Support and Perceived Stress  
on Positive and Negative Parental Behavior

Criterion	Predictors	B	R Squared	df	F
Positive Parental Behavior	Perceived Stress	.03	.02	1,84	.09
	Overall Support	.04	.13	1,84	10.73c
	All Predictors			2,83	6.38b
Negative Parental Behavior	Perceived Stress	.24	.07	1,84	4.08a
	Overall Support	.01	.08	1,84	.30
	All Predictors			2,83	3.52a

a= $p < .05$   
b= $p < .01$   
c= $p < .001$

From Table 7 we see that the stress by support interactions were not significant for either Positive or Negative Parental Behavior. However, we can see from Table 7 that social support was highly significant,  $F(1,84)=10.73$ ,  $p<.001$ , in predicting Positive Parental Behavior. In addition, when both stress and social support are analyzed, the overall model was significant in predicting Positive Parental Behavior. This is a result of the strong social support effect. As expected, perceived stress significantly predicted Negative Parental Behavior,  $F(1,84)=4.08$ ,  $p<.05$ . Hence, the greater the stress, the more negative parental behaviors one displays. The stress and social support model was also significant in predicting Negative Parental Behavior.

Multiple regression analyses were computed in which the four social support subscales and Perceived Stress were regressed on Positive Parental Behavior. The results of the interaction models are summarized in Table 9 and the main effects models in Table 10.

Table 9

Interaction Effects Models of the Four Social Support Subscales  
and Perceived Stress on Positive Parental Behavior

Criterion	Predictors	B	R Squared	df	F
Positive Parental Behavior	Perceived Stress	.67	.02	1,84	1.51
	Tangible Support	.30	.04	1,84	2.78
	Interaction Product	-.09	.06	1,84	1.96
	Perceived Stress	.27	.02	1,84	.34
	Belonging Support	.19	.13	1,84	1.36
	Interaction Product	-.03	.13	1,84	.38
	Perceived Stress	-.22	.02	1,84	.32
	Appraisal Support	.03	.11	1,84	.04
	Interaction Product	.02	.11	1,84	.21
	Perceived Stress	1.14	.02	1,84	6.1b
	Self-Esteem Support	.48	.04	1,84	8.5b
	Interaction Product	-.15	.12	1,84	7.1b

b=p < .01

There were no significant interactions between Perceived Stress and Tangible, Belonging and Appraisal Support. However, a stress by self-esteem support interaction was observed  $F(3,82)=7.3, p<.01$ . Two methods were used in order to determine the form of the stress by Self-Esteem Support interaction. First, median splits (those participants greater than and less than the median of Self-Esteem Support) were obtained. Correlations were computed between Perceived Stress and Positive Parental Behavior within each of these two groups. The second method involved taking scores one or more standard deviations above the mean and one or more standard deviations below. Again, correlations between Perceived Stress and Positive Parental Behavior were computed. There were no buffering effects observed from either of the two methods. The expected findings would have demonstrated that the correlations between Perceived Stress and Positive Parental Behavior would be lower under high levels of Self-Esteem Support and higher under low Self-Esteem Support if the buffering effect was present. A correlation of  $r=-.21, n=43$  between Perceived Stress and Positive Parental Behavior under low Self-Esteem Support and a correlation of  $r=.18, n=43$ , under high Self-Esteem Support was obtained. Although neither correlation was significant, this finding suggests that stress may have less of a detrimental influence when self-esteem support is high.

From Table 10 it is apparent that Belonging Support was highly significant in predicting Positive Parental Behavior  $F(1,84)=10.11$ ,  $p<.001$ . Appraisal Support also significantly predicted Positive Parental Behavior  $F(1,84)=7.8$ ,  $p<.01$ . Tangible and Self-Esteem Support however, did not significantly predict Positive Parental Behavior. Furthermore, when both Perceived Stress and Social Support were included in the regression, Belonging and Appraisal Support significantly predicted Positive Parental Behavior. Tangible and Self-Esteem Support did not predict Positive Parental Behavior when Perceived Stress was added to the analyses.

Table 10

Main Effects Models of the Four Social Support Subscales and  
Perceived Stress on Positive Parental Behavior

Criterion	Predictors	B	R Squared	df	F
Positive Parental Behavior	Perceived Stress	-.08	.02	1,84	.72
	Tangible Support	.06	.04	1,84	1.30
	All Predictors			2,83	1.56
	Perceived Stress	-.01	.02	1,84	.014
	Belonging Support	.09	.13	1,84	10.14b
	All Predictors			2,83	6.08b
	Perceived Stress	-.05	.02	1,84	.30
	Appraisal Support	.09	.11	1,84	7.8b
	All Predictors			2,83	4.89b
	Perceived Stress	-.06	.02	1,84	.32
	Self-Esteem Support	.06	.04	1,84	1.58
	All Predictors			2,83	1.71

b=p<.01



Turning to Negative Parental Behavior, here again multiple regression analyses were computed separately with the four types of support and Perceived Stress as predictors. These results are summarized in Tables 11 and 12. From Table 10 we can see that there were no stress X support interactions for Tangible, Belonging or Appraisal Support. A significant interaction,  $F(1,84)=5.3$ ,  $p<.01$  was observed for Negative Parental Behavior involving Self-Esteem Support. Here again the same two methods as before were utilized to determine the pattern of this interaction. No buffering effects were found when either the median split or the standard deviation methods were used. Correlations between Perceived Stress and Negative Parental Behavior showed similar patterns as those found between Perceived Stress and Positive Parental Behavior. Here again a positive significant correlation  $r=.46$ ,  $n=43$ , was obtained between Perceived Stress and Negative Parental Behavior for those with high Self-Esteem Support, whereas a correlation of  $r=.02$ ,  $n=43$  was found for those with low Self-Esteem Support.

Table 12 shows that Perceived Stress predicted Negative Parental Behavior in two of the multiple regressions. In the regressions with Belonging and Self-Esteem Support, Perceived Stress significantly predicted Negative Parental Behavior,  $F(1,84)=6.10$ ,  $p<.01$ ;  $F(1,84)=4.8$ ,  $p<.05$ , respectively. The four social support subscales were not significant in predicting Negative Parental Behavior, as would be expected. However, in all four of the cases the overall models were significant.

Table 11

Interaction Effects Models of the Four Social Support  
Subscales and Perceived Stress on Negative Parental Behavior

Criterion	Predictors	B	R Squared	df	F
Negative Parental Behavior	Perceived Stress	-.09	.07	1,84	.02
	Tangible Support	-.14	.08	1,84	.40
	Interaction Product	.04	.08	1,84	.30
	Perceived Stress	.79	.07	1,84	1.83
	Belonging Support	.19	.08	1,84	.82
	Interaction Product	-.06	.08	1,84	.79
	Perceived Stress	1.08	.07	1,84	5.25a
	Appraisal Support	.26	.09	1,84	2.29
	Interaction Product	-.11	.13	1,84	3.37
	Perceived Stress	-1.03	.07	1,84	3.4
	Self-Esteem Support	-.46	.07	1,84	5.3a
	Interaction Product	-.16	.10	1,84	5.6b

a=p&lt;.05

b=p&lt;.01

Table 12

**Main Effects Models of the Four Social Support Subscales and  
Perceived Stress on Negative Parental Behavior**

Criterion	Predictors	B	R Squared	df	F
Negative Parental Behavior	Perceived Stress	.26	.07	1,84	5.13a
	Tangible Support	.03	.08	1,84	.18
	All Predictors			2,83	3.46a
	Perceived Stress	.28	.07	1,84	6.10b
	Belonging Support	.01	.08	1,84	.03
	All Predictors			2,83	3.37a
	Perceived Stress	.24	.07	1,84	4.7a
	Appraisal Support	-.05	.09	1,84	1.44
	All Predictors			2,83	4.14b
	Perceived Stress	.27	.07	1,84	4.9a
	Self-Esteem Support	-.01	.07	1,84	.01
	All Predictors			2,83	3.36a

a=p &lt; .05

b=p &lt; .01

### Discussion

This study investigated the relationship between stress, social support and parental behavior. The first hypothesis was that stress would relate to Negative Parental Behavior, but not Positive Parental Behavior. This hypothesis was supported. Stress correlated with Negative Parental Behavior, and proved to be a good predictor of Negative Parental Behavior. This finding is consistent with previous research on perceived stress that has reported negative physical and psychological reactions associated with stress. (Cohen & Hoberman, 1983; Cohen, Kamarack & Mermelstein, 1983).

The second hypothesis, that social support would positively correlate with Positive Parental Behavior was also confirmed. The overall support scale and three subscales (belonging, appraisal, and self-esteem support) were moderately correlated with Positive Parental Behavior. These findings are congruent with those of other studies (Cohen & Wills, 1986; Crockenburg, 1981) that have reported the positive influences of social support. Tangible support was not significantly correlated with Positive Parental Behavior. In relation to this study, it seems reasonable that Tangible Support would not influence parental behavior as much as the three other sub-types of support since the majority of the mothers in this study worked inside the home with their children enrolled in daycare. The fact that these mothers stayed at home and could afford for their children to go to daycare suggests that these families may have less monetary,

babysitting, and household task-oriented needs. Therefore, it seems likely that tangible support would not be the type of support needed most by these mothers. Furthermore, the mean for Tangible Support was higher than all three of the other social support subscales, suggesting that Tangible Support is the type of support these mothers perceived themselves having available most. The finding that social support strongly relates to Positive Parental Behavior suggests that social support may be an important factor in influencing positive behaviors in parents.

The findings regarding these two hypotheses seem consistent with the two-factor theory of emotional well-being. In the present study, parental behavior, as opposed to affect was studied. However, the two-factor theory also appears to apply in this study. Social support was related to Positive Parental Behavior. Only Appraisal and the overall support scale related to Negative Parental Behavior. In addition, stress was related to Negative Parental Behavior but not Positive. Therefore, this study found similar results as Nelson's (under review), research on the two-factor theory of emotional well-being.

The third hypothesis, that social support would moderate the negative effects of stress on Positive and Negative Parental Behavior was not supported. There were no significant interactions found between the overall ISEL support scale, and between tangible, belonging or appraisal support subscales, and stress for either Positive or Negative Parental Behavior. There was however a significant stress by self-esteem support

interaction on both Positive and Negative Parental Behavior. The expected form of the relationship, that high levels of social support would lessen the effects of high levels of stress, was not found in follow-up analyses however. Although numerous studies have found that social support buffers stress (Crockenberg, 1981; Eaton, 1978; Henderson, 1981; Henderson, Duncan-Jones, Byrne, & Scott, 1980; Kessler & Essex, 1982; Thoits, 1982; Sandler, 1980), results from the present study indicate that buffering effects are not typical of the mothers in this study.

One possible explanation for a lack of stress-buffering may be a characteristic of the mothers in this study. More than 90% of the mothers in this study were married. This suggests that there may be consistent spousal support available. Also, the majority (70%) of the mothers worked inside the home with their child enrolled in daycare. These mothers thus had the monetary resources to send their child to daycare. Another possible explanation for the lack of buffering effects is that the mothers in this study reported lower levels of stress than either the two college samples and the smoking cessation sample from the Cohen et al. (1983) study. Although these levels do not look as though they would be significantly different, this finding does provide evidence which might explain why buffering effects were not found. The low levels of stress may explain the lack of buffering effects. Several researchers have reported that buffering effects are observed only under high levels of stress

(Cohen & Wills, 1985; Eckenrode & Gore, 1981; Thoits, 1982).

What also needs explanation is the form of the interaction. Opposite effects to the buffering hypothesis were found. According to a review of the social support literature by Barrera (1986) several models other than the buffering and direct effects have been reported when a measure of perceived social support has been used. One such model is called the "stress deterioration model." This model maintains that stress decreases the perceived usefulness of social support. Barrera discusses Mitchell and Moos' (1984) study which found that perceived strain related to a decrease in perceived family support. Furthermore, these authors did not find that perceived family support prevented perceived strain. This study may provide some evidence as to why opposite results of the buffering effect were found in the present research. Perhaps perceived stress led to less perceived availability of social support. Present findings are consistent with this. Thus, rather than support serving as a buffer, stress diminished the perception of effective social support, which may explain why the correlations between Perceived Stress and Positive and Negative Parental Behavior under high support were not lower than those under low social support.

Another possible explanation for the lack of buffering effects may be due to confounding. Barrera (1986) reports a few authors (Gore, 1981; Henderson et al, 1978) who state that an overlap may exist between measures of perceived stress and perceived social support. Considering that all four subscales

and the Overall Support Scale were significantly negatively correlated with Perceived Stress, the problem of confounding may very well have occurred. Future studies employing these two instruments should conduct the proper analyses in order to ensure that these two measures do in fact assess two distinct factors.

Social support did, however, exert consistent main effects on parental behavior. Main effects were observed for belonging and appraisal support on Positive Parental Behavior. This suggests that mothers' sense of belonging and information and help with problem solving is important in maintaining positive parental behaviors and that a lack of these types of support may diminish positive parenting practices. This study is more consistent with the view of the direct effects model, that support provides a positive influence on parenting, than with the idea that support buffers the effects of stressors. Aneshensel and Stone (1982) state that a lack of support appears to constitute a negative influence rather than that social support buffers stress. There were also main effects for perceived stress and negative parental behavior. This finding provides strong evidence that stress predicts negative physical and psychological reactions, which has also been confirmed by previous studies (Belsky, 1984; Crockenburg, 1981).

One limitation of this study may be that this group of mothers was quite a homogenous group. The majority of mothers had a university education, could afford to have their child in daycare while they worked at home, were married (therefore we may



assume they had some levels of spousal support) and were over thirty, suggesting that they were more mature and had greater knowledge of child-rearing issues. In addition, when compared to Cohen et al.'s (1983) college and smoking cessation samples, the mothers in this study reported lower stress scores. This suggests then that this group of mothers are not highly stressed. Thus, one future recommendation would be to study parents who vary according to socioeconomic status, working outside versus inside the home, single versus married mothers and finally sample a variety of daycare facilities that may have differing philosophies which may in turn interest different types of parents.

Another factor which may be considered a limitation is the use of a non-standardized scale to measure the dependent variable. The Parent Behavior Scale was developed for this study. Although the scale was tested to have good internal consistency, it has not been validated. The Parent Behavior Scale needs to be tested for validity and shown to be an accurate measure of both Positive and Negative Parental Behavior.

The present study demonstrated the relationship between stress, social support and parental behavior. It was confirmed that social support predicts Positive Parental Behavior. In addition, stress was strongly related to Negative Parental Behavior. However, the present study was correlational in nature, and thus we can not determine the causal effects of stress and support on parental behavior. Future research needs

to be done so that causal inferences may be made between stress and social support. One possible study could investigate two equally matched groups of parents. One group (the experimental group) would attend a series of workshops designed to teach parents how to develop, enhance, maintain and adequately use their social support systems. The control group, on the other hand, would not receive any training. The information obtained from such studies would be useful in further understanding the relationship between stress and social support. Another possible investigation would examine a group of parents that is considered to be highly stressed - adolescent parents. Findings from such research would be beneficial in developing prevention programs specifically designed for this population.

This study has demonstrated the significant relationship between social support and Positive Parental Behavior. Furthermore, this study has demonstrated that Negative Parental Behavior is associated with stress. The findings from this study will be beneficial to community interventionists, therapists, professionals and paraprofessionals working with parents. Individuals working with parents and families can teach parents methods to enhance their social supports. Families may learn to use their supportive systems in more constructive ways which in turn may increase positive behaviors. In addition, training parents the benefits of social supports and methods to utilize, maintain and develop support systems could be incorporated into a parent training program. One example may be to teach parents to

develop relationships with their neighbors so that they may be members of a more cohesive support system, which in turn may increase feelings of security, belonging, and self-esteem. This support system may also aid in providing tangible needs such as babysitting. Thus the benefits of social supports might increase positive behaviors within families and communities.

In conclusion, the findings from the present study have both theoretical and practical implications. Theoretically this study provides further evidence for the need to investigate other models of social support other than the buffering and main effects models in determining how social support influences emotional well-being. In terms of practical implications, it seems clear that information regarding all dimensions of social support (i.e., satisfaction, utilization, function, maintenance, and development) should be included in parent programs which are designed to enhance parental behavior.

## Appendix A - Telephone Script to Daycare Centres

Hello, is the Director in today?

<If No> Do you know when she or he will be in?

Time:  
Thank you

<If Yes>

Hello, Ms./Mr. \_\_\_\_\_ my name is Mila Buset and I'm a graduate student in social community psychology at Wilfrid Laurier University. Presently, I'm working under the supervision of Dr. Mark Pancer for my masters thesis research.

We are interested in how stress and social support influence parental behavior. In other words, we are trying to discover how individuals parent the way they do.

I'm calling to request your permission to ask the parents of your day care to participate in this research study. Parents would be asked to complete four questionnaires, which would take approximately 30 minutes. Their responses would be kept strictly confidential.

A covering letter describing who I am and a complete description

Do you have any questions?

Do you think I could bring some packages for the parents at your day care?

<IF YES>

When is a good time for me to come down?

DATE: \_\_\_\_\_

TIME: \_\_\_\_\_

DIRECTIONS/ADDRESS: \_\_\_\_\_

\_\_\_\_\_

Thank you for your help. I look forward to meeting you on \_\_\_\_\_.

<IF NO> Thank you for your time.

Appendix B - Cover Letter to Parents  
(LETTERHEAD)  
Date

Dear Parent,

My name is Mila Buset and I am a graduate student in social community psychology at Wilfrid Laurier University. Presently, I am working under the supervision of Dr. Mark Pancer for my masters thesis research.

We are interested in investigating how stress and social support influence parental behavior. We would greatly appreciate if mothers could take the time to participate in this study. Your participation would involve completing three questionnaires. It shouldn't take more than 30 minutes to complete the questionnaires. Your responses will provide relevant information about how individuals parent the way they do.

Please keep in mind that the information you provide will be kept strictly confidential. To this end, please do not include your name on the questionnaires. Moreover, the information you provide will be available only to myself and Dr. Pancer. Thus, your anonymity is assured. In addition, please remember that your participation is completely voluntary, thus, you may withdraw from the study at any time you choose.

Should you have any questions at all about the study, feel free to contact me at 747-0218 or 884-1970 ext. 2929. Please return the completed questionnaires in the envelope provided with your son or daughter to return to his or her teacher. Return any uncompleted questionnaires in the same manner.

Thank you very much for your time and help.

Sincerely,

Mila Buset  
M.A. Candidate

Mark Pancer  
Ph.D



### Appendix D - Interpersonal Support Evaluation List

This scale is made up of a list of statements each of which may or may not be true about you. For each statement we would like you to circle probably TRUE (PT) if the statement is true about you or probably FALSE (PF) if the statement is not true about you.

You may find that many of the statements are neither clearly true nor clearly false. In these cases, try to decide quickly whether probably TRUE (PT) or probably FALSE (PF) is most descriptive of you. Although some questions will be difficult to answer, it is important that you pick one alternative or the other. Remember to circle only one of the alternatives for each statement.

Please read each item quickly but carefully before responding. Remember that this is not a test and there are no right or wrong answers.

- \_\_\_ 1. If I got stranded late at night, there is someone I could call to come get me.
- \_\_\_ 2. When I feel lonely, there are several people I could call and talk to.
- \_\_\_ 3. Most people I know don't enjoy the same things that I do.
- \_\_\_ 4. If I wanted to have coffee with someone, I could easily find someone to join me.
- \_\_\_ 5. There is really no one who can give me an honest opinion about how I'm handling my problems.
- \_\_\_ 6. There are several different people with whom I enjoy spending time.
- \_\_\_ 7. If I needed some help in moving to a new home (apartment), I would have a hard time finding someone to help me.
- \_\_\_ 8. Most of my friends are more successful at making changes in their lives than I am.
- \_\_\_ 9. When I need suggestions for how to deal with a personal problem, I now there is someone I can turn to.
- \_\_\_ 10. I don't often get invited to do things with others.
- \_\_\_ 11. I know someone who I can rely on when I need someone to look after my children.
- \_\_\_ 12. No one I know would throw a birthday party for me.

- \_\_\_13. I feel that there is no one with whom I can share my most private worries and fears.
- \_\_\_14. There is someone I can turn to for advice about handling hassles over my children.
- \_\_\_15. There is really no one who I feel comfortable talking to about sexual problems.
- \_\_\_16. I am closer to my friends than most other people.
- \_\_\_17. I am able to do things as well as most other people.
- \_\_\_18. In general, people don't have much confidence in me.
- \_\_\_19. There are very few people I trust to help solve my problems.
- \_\_\_20. If I had to cash an important cheque and couldn't do it myself, there is someone who could do it.
- \_\_\_21. If I needed a person to babysit overnight, I would have a hard time finding anyone.
- \_\_\_22. I know someone who is important to me because they help with child-related problems.
- \_\_\_23. There is someone I could talk to about changing my job or finding a new one.
- \_\_\_24. Most of my friends are more interesting than I am.
- \_\_\_25. There is no one I could call on if I needed to borrow an extra mattress or bed for a few nights.
- \_\_\_26. If I were sick and needed someone to go with me to the hospital, I would have trouble finding someone.
- \_\_\_27. If I had to leave my home because of an emergency, someone I know would look after my children.
- \_\_\_28. I regularly meet or talk with members of my family or friends.
- \_\_\_29. If for some reason I were put in jail, there is someone I could call who would bail me out.
- \_\_\_30. If I wanted to go out for the day with my kids (e.g. Centre Island), I would have a hard time finding someone to with me.



- \_\_\_31. I think that my friends feel that I'm not very good at helping them solve problems.
- \_\_\_32. I am more satisfied with my life than most people are with theirs.
- \_\_\_33. I have someone who takes pride in my accomplishments.
- \_\_\_34. If I were sick, there would be almost no one I could find to do my grocery shopping.
- \_\_\_35. I know someone I can talk to about parenting.
- \_\_\_36. Most people I know think highly of me.
- \_\_\_37. If I needed a quick emergency loan of \$20.00, there is someone I could get it from.
- \_\_\_38. If a family crisis arose, few of my friends would be able to give me good advice about handling it.
- \_\_\_39. I feel that I'm on the fringe in my circle of friends.
- \_\_\_40. If I decide on a Friday afternoon that I would like to go to a movie that evening, I could find someone to go with me.
- \_\_\_41. I have a hard time keeping pace with my friends.
- \_\_\_42. There is at least one person I know whose advice I really trust.
- \_\_\_43. There is someone who has ideas about what to do for fun.

### Appendix E - Perceived Stress Scale

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate how often you felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer each question fairly quickly. That is, don't try to count up the number of times you felt a particular way, but rather indicate the alternative that seems like a reasonable estimate.

For each question choose from the following alternatives:

1. NEVER
2. ALMOST NEVER
3. SOMETIMES
4. FAIRLY OFTEN
5. VERY OFTEN

During the last month how often have you ....

1. Been upset because of something that happened unexpectedly?  
1                    2                    3                    4                    5
2. Felt that you were unable to control the important things  
in your life?  
1                    2                    3                    4                    5
3. Felt nervous and "stressed"?  
1                    2                    3                    4                    5
4. Dealt successfully with irritating life hassles?  
1                    2                    3                    4                    5
5. Felt that you were effectively coping with important changes  
that were occurring in your life?  
1                    2                    3                    4                    5
6. Felt confident about your ability to handle your personal  
problems?  
1                    2                    3                    4                    5
7. Felt that things were going your way?  
1                    2                    3                    4                    5

8. Found that you could not cope with all the things that you had to do?  
1                    2                    3                    4                    5
9. Been able to control irritations in your life?  
1                    2                    3                    4                    5
10. Felt that you were on top of things?  
1                    2                    3                    4                    5
11. Been angered because of things that happened that were outside of your control?  
1                    2                    3                    4                    5
12. Found yourself thinking about things that you have to accomplish?  
1                    2                    3                    4                    5
13. Been able to control the way you spend your time?  
1                    2                    3                    4                    5
14. Felt difficulties were piling up so high that you could not overcome them?  
1                    2                    3                    4                    5

### Appendix F - Parent Behavior Scale

The questions in this questionnaire ask you about different kinds of things you may have done with your child during the last month. In each case, you will be asked to indicate how often you did certain things over that period. Please answer each of the statements with your four or five year old child in mind. Some of the statements describe positive behaviors, and others describe behaviors that may be seen as less positive. Please try to respond to each statement as frankly and honestly as possible. Keep in mind that no parent is perfect and that even the best parent sometimes says or does things that he or she may not have intended.

For each question, indicate whether you have never, almost never, sometimes, fairly often or very often engaged in the behavior described by circling the appropriate number below the statement:

1. NEVER
2. ALMOST NEVER
3. SOMETIMES
4. FAIRLY OFTEN
5. VERY OFTEN

During the last month, how often have you ...

1. Spent time with your child?  
1                      2                      3                      4                      5
2. Been angry with your child?  
1                      2                      3                      4                      5
3. Done something to make your child happy?  
1                      2                      3                      4                      5
4. Yelled at or spanked your child for something that you usually would not have yelled at or spanked him/her for?  
1                      2                      3                      4                      5
5. Disagreed with your child?  
1                      2                      3                      4                      5
6. Consoled your child when he/she was upset about something?  
1                      2                      3                      4                      5
7. Engaged in a fun activity with your child?  
1                      2                      3                      4                      5
8. Scolded your child for interrupting a conversation you were having?  
1                      2                      3                      4                      5

9. Felt confident in decisions you have made about your child?  
1                    2                    3                    4                    5
10. Let your child know all you have done for him/her when you  
were angry with him or her for something?  
1                    2                    3                    4                    5
11. Been frustrated with your child?  
1                    2                    3                    4                    5
12. Told your child how he/she will turn out because of his/her  
bad behavior.  
1                    2                    3                    4                    5
13. Got angry with your child for not listening to you?  
1                    2                    3                    4                    5
14. Expressed affection for your child by hugging, kissing, or  
holding him/her.  
1                    2                    3                    4                    5
15. Spanked your child?  
1                    2                    3                    4                    5
16. Been happy being a parent?  
1                    2                    3                    4                    5
17. Enjoyed your child's company?  
1                    2                    3                    4                    5
18. Laughed with your child?  
1                    2                    3                    4                    5
19. Refused your child's requests?  
1                    2                    3                    4                    5
20. Stopped talking to your child after he/she has  
displeased you?  
1                    2                    3                    4                    5
21. Yelled at your child?  
1                    2                    3                    4                    5
22. Wished you were childless?  
1                    2                    3                    4                    5
23. Engaged in an activity of your child's choice?  
1                    2                    3                    4                    5

24. Successfully handled crises that have arisen about your child?  
1                    2                    3                    4                    5
25. Got angry with your child for taking too long to do something?  
1                    2                    3                    4                    5
26. Asked your child his/her opinion?  
1                    2                    3                    4                    5
27. Told your child not to bother you because you were busy doing something else?  
1                    2                    3                    4                    5
28. Scolded your child for something that wasn't really his/her fault?  
1                    2                    3                    4                    5
29. Punished your child for something more severely than you should have?  
1                    2                    3                    4                    5
30. Praised your child?  
1                    2                    3                    4                    5
31. Trusted your child's word?  
1                    2                    3                    4                    5
32. Sent your child to his or her room (or a "time out" place) for misbehaving?  
1                    2                    3                    4                    5
33. Told your child you loved him/her?  
1                    2                    3                    4                    5
34. Got angry with your child for making a mess?  
1                    2                    3                    4                    5
35. Talked to your child?  
1                    2                    3                    4                    5
36. Played with your child?  
1                    2                    3                    4                    5
37. Wished you had more time off from taking care of your children?  
1                    2                    3                    4                    5
38. Asked your child what he or she had done that day.  
1                    2                    3                    4                    5

## References

- Aneshensel, C.S., & Stone, J.D. (1982). Stress and depression. Archives of General Psychiatry, 39, 1392-1396.
- Antonucci, T. C., & Depner, C. E. (1982). Social support and informal relationships. In T.A. Wills (Ed.), Basic processes in helping relationships (pp. 233-254). New York: Academic Press.
- Barrera, M., Jr. (1981). Social support in the adjustment of pregnant adolescents: Assessment issues. In B.H. Gottlieb (Ed.), Social networks and social support (pp.69-96). Beverly Hills: Sage.
- Barrera, M. (1986). Distinctions between social support concepts, measures, and models. American Journal of Community Psychology, 14, 413-445.
- Bell, R. A., LeRoy, J. B., & Stephenson, J. J. (1982). Evaluating the mediating effects of social support upon life events and depressive symptoms. Journal of Community Psychology, 10, 325-340.
- Belsky, J. (1981). Early human experience: A family perspective. Developmental Psychology, 17, 3-23.
- Belsky, J. (1984). The determinants of parenting: A process model. Child Development, 55, 83-96.
- Berkman, L. F., & Syme, S. L. (1979). Social networks, resistance and mortality: A nine-year follow-up study of Alameda County residents. American Journal of Epidemiology, 109, 186-204.

- Blishen, B. R., & McRoberts, H. A. (1976). A revised socioeconomic index for occupations in Canada. Canadian Review of Sociology and Anthropology, 13, 71-80.
- Brown, G. W., Bhrolchain, M. N., & Harris, T. (1975). Social class and psychiatric disturbance among women in an urban population. Sociology, 9, 225-254.
- Cassel, J. (1976). The contribution of the social environment to host resistance. American Journal of Epidemiology, 104, 107-123.
- Cobb, S. (1976). Social support as a moderator of life stress. Psychosomatic Medicine, 38, 300-314.
- Cochran, M. M., & Brassard, J. A. (1979). Child development and personal social networks. Child Development, 50, 601-616.
- Cohen, S. (1980). Aftereffects of stress on human performance and social behavior: A review of research and theory. Psychological Bulletin, 88, 82-108.
- Cohen, S. & Hoberman, H. (1983). Positive events and social supports as buffers of life change stress. Journal of Applied Social Psychology, 13, 99-125.
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. Journal of Health and Social Behavior, 24, 385-396.



- Cohen, S., & McKay, G. (1983). Social support, stress, and the buffering hypothesis: A theoretical analysis, In A. Baum, S. E. Taylor, & J. Singer (Eds.), Handbook of psychology and health, Vol. 4. (pp. 253-268). Hillsdale, N.J.: Erlbaum.
- Cohen, S., & Syme, S. L. (Eds.). (1985). Social support and health. New York: Academic Press.
- Cohen, S., & Wills, T. A. (1985). Stress, social support and the buffering hypothesis. Psychological Bulletin, 98, 310-357.
- Cooper, C. L., & Marshall, J. (1979). Occupational sources of stress: A review of the literature relating to coronary heart disease and mental ill health. Journal of Occupational Psychology, 49, 11-28.
- Crnic, K. A., Greenberg, M. T., Ragozin, A. S., Robinson, N. M. & Bashan, R. B. (1983). Effects of stress and social support on mothers of premature and full term infants. Child Development, 54, 209-217.
- Crockenberg, S. B. (1981). Infant irritability, mother responsiveness and social support influences on the security of infant-mother attachment. Child Development, 52, 857-865.
- Diener, E., & Emmons, R. A. (1985). The independence of positive and negative affect. Journal of Personality and Social Psychology 47, 1105-1117.
- Dohrenwend, B. S., & Dohrenwend, B. P. (Eds.). (1974). Stressful life events: Their nature and effects. New York: Wiley.

- Eaton, W. W. (1978). Life events, social supports, and psychiatric symptoms: A re-analysis of the New Haven data. Journal of Health and Social Behavior, 19, 230-234.
- Elder, G. H., Nguyen, T. V., & Aushalom, C. (1985). Linking family hardship to children's lives. Child Development, 56, 361-375.
- Eckenrode, J., & Gore, S. (1981). Stressful events and social supports: The significance of context. In B.H. Gottlieb (Ed.), Social networks and social support (pp. 43-68). Beverly Hills: Sage.
- Frydman, M. I. (1981). Social support, life events and psychiatric symptoms: A study of direct, conditiona . and interaction effects. Social Psychiatry, 16, 69-78.
- Garbarino, J. (1976). A preliminary study of some ecological correlates of child abuse: The impact of socioeconomic stress on mothers. Child Development, 47, 178-185.
- Gatchel, R. J. & Baum, A. (1983). An introduction to health psychology. New York: Random House.
- Gottlieb, B. H. (Ed.) (1981). Social networks and social support. Beverly Hills, California: Sage.
- Henderson, S. (1981). Social relationships, adversity and neurosis: An analysis of perspective observations. British Journal of Psychiatry, 138, 391-398.

- Henderson, S., Duncan-Jones, P., Byrne, D. B., & Scott, R. (1980).  
Measuring social relationships: The interview schedule for  
social interaction. Psychological Medicine, 10, 723-734.
- Henry, J. P., & Cassel, J. C. (1969). Psychosocial factors in  
essential hypertension: Recent epidemiologic and animal  
experimental evidence. American Journal of Epidemiology,  
90, 171-200
- Holmes, T. H., & Masuda, M. (1974). Life change and illness  
susceptibility. In B. S. Dohrenwend, & B. P. Dohrenwend (Eds.),  
Stressful life events: Their nature and effects (pp. 45-72).  
New York: Wiley.
- Holmes, T., & Rahe, R. (1967). The social readjustment rating scale.  
Journal of Psychosomatic Research, 11, 213-218.
- Hough, R. L., Fairbank, D. T., & Garcia, A. M. (1976). Problems in  
ratio measurement of life stress. Journal of Health and Social  
Behavior, 17, 70-82.
- House, J. S. (1981). Work stress and social support. Reading, MA:  
Addison-Wesley.
- Husaini, B. A., Neff, J. A., Newbrough, J. R., & Moore, M. C. (1982).  
The stress-buffering role of social support and personal competence  
among the rural married. Journal of Community  
Psychology, 10, 409-426.

- Kasl, S. V. (1983). Pursuing the link between stressful life experiences and disease. A time for reappraisal. In C.L. Cooper (Ed.), Stress research (pp. 79-102). New York: Wiley.
- Kessler, R.C., & Essex, M. (1982). Marital status and depression: The role of coping resources. Social Forces, 61, 484-507.
- Lazarus, R. S. (1966). Psychological stress and the coping process. New York: McGraw-Hill.
- Lazarus, R. S. (1980). The stress and coping paradigm.. In C. Eisdorfer, D. Cohen, A. Kleinman, P. Maxim (Eds.), Models for clinical psychopathology, (pp. 177-214). New York: Spectrum.
- Lazarus, R. S., & Launier, R. (1978). Stress related transactions between person and environment. In L. A. Pervin & M. Lewin (Eds.). Perspective in interactional psychology (pp. 287-327). New York: Plenum Press.
- Lazarus, R. S. & Folkman, S. (1984). Stress, appraisal and coping. New York: Springer.
- Leavy, R. L. (1983). Social support and psychological disorder. Journal of Community Psychology, 11, 3-21.
- Lin, N., Ensel, W. M., Simeone, R. S. & Kuo, W. (1979). Social support, stressful life events and illness: A model and an empirical test. Journal of Health and Social Behavior, 20, 108-119.

- Loventhal, M. F., & Haven, C. (1968). Interaction and adaptation: Intimacy as a critical variable. American Sociological Review, 33, 20-30.
- Nelson, G. (under review). Life strains, social support and positive and negative affect: Cross-sectional and longitudinal tests of the two-factor theory of emotional well-being.
- Nuckolls, K. B., Cassel, J. & Kaplan, B. H. (1972). Psychosocial assets, life crisis and the prognosis of pregnancy. American Journal of Epidemiology, 95, 431-441.
- Paykel, E. S., Emms, E. M., Fletcher, J., & Rossaby, E. S. (1980). Life events and social support in puerperal depression. British Journal of Psychology, 136, 339-346.
- Pearlin, L. I., Lieberman, M. A., Menaghan, E. G., & Mullan, J. T. (1981). The stress process. Journal of Health and Social Behavior, 22, 337-356.
- Powell, D. R. (1979). Family environment relations and early child-rearing: The role of social networks and neighborhoods. Journal of Research and Development in Education, 13(1), 1-11.
- Reis, J., Barbara-Stein, L., & Bennett, S. (1986). Ecological determinants of parenting. Family Relations, 35, 547-554.
- Sandler, I. N. (1980). Social support resources, stress and maladjustment of poor children. American Journal of Community Psychology, 8, 41-52.

- Selye, H., (1976). The stress of life. New York: McGraw-Hill, 1976.
- Sklar, L. S., & Anisman, H. (1981). Stress and cancer. Psychological Bulletin, 89, 369-406.
- Tausig, M. (1982). Measuring life events. Journal of Health and Social Behavior, 23, 52-64.
- Taylor, S. E. (1986). Health psychology. New York: Random House.
- Tetzloff, C. E., & Barrera, M. (1987). Divorcing mothers and social support: Testing the specificity of buffering effects. American Journal of Community Psychology, 15, 419-434.
- Thoits, P. A. (1981). Undesirable life events and psychophysiological distress: A problem of operational confounding. American Sociological Review, 46, 97-109.
- Thoits, P. A. (1982). Conceptual methodological and theoretical problems in studying social support as a buffer against life stress. Journal of Health and Social Behavior, 23, 145-159.
- Warheit, B. J. (1979). Life event, coping stress and depressive symptomatology. American Journal of Psychiatry, 136, 502-507.
- Watson, D. (1988). Intraindividual and interindividual analyses of positive and negative affect: Their relation to health complaints, perceived stress, and daily activities. Journal of Personality and Social Psychology, 54, 1020-1030.