

ADOLESCENT LONELINESS AND DIMENSIONS OF SELF CONCEPT

by

KATHY NANCY HARWARD

B. Ed., University of British Columbia, 1980

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF  
THE REQUIREMENTS FOR THE DEGREE OF  
MASTER OF ARTS

in

THE FACULTY OF GRADUATE STUDIES  
(Department of Counselling Psychology)

We accept this thesis as conforming  
to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA

JUNE 1989

© Kathy N. Harward, 1989

In presenting this thesis in partial fulfilment of the requirements for an advanced degree at the University of British Columbia, I agree that the Library shall make it freely available for reference and study. I further agree that permission for extensive copying of this thesis for scholarly purposes may be granted by the head of my department or by his or her representatives. It is understood that copying or publication of this thesis for financial gain shall not be allowed without my written permission.

Department of Counselling Psychology

The University of British Columbia  
Vancouver, Canada

Date September 19, 1989

### **ABSTRACT**

The purpose of this study was to examine the experience of loneliness and identify factors that were correlated with the degree of loneliness that an adolescent experiences. Areas investigated were the extent of loneliness prevalent in the sample, and the relationships between loneliness and facets of self concept, friendship and background information.

This survey study involved 166 adolescents. Subjects were grade 10 students attending secondary schools in Surrey School District, Surrey, British Columbia. The survey was conducted in class units during regularly scheduled school hours.

The instruments employed in this study were the Revised U.C.L.A. Loneliness Scale measuring the degree of loneliness experienced; a modified version of the Self Description Questionnaire III measuring 12 facets of self concept; a sociogram questionnaire examining friendships in the surveyed class; and a subject information sheet gathering data on age, gender, language, number of parents, and parents' occupational prestige.

The analysis of data included descriptive statistics of each variable, and inferential statistics of independent variables to the dependent variable loneliness.

Following this was a factor analysis of the preliminary self concept variables resulting in four factor scores. Finally four regression models of the loneliness scores were run. Each model was loaded with different combinations of predictor variables of self concept and background information.

There were five key findings of this study. One, seventeen percent of the sample reported feeling "sometimes" to "often" lonely. Two, negative social self concept was a significant predictor of loneliness, while academic self concept was not. Three, male and female subjects scored virtually the same on loneliness, however when self concept scores were controlled, males were lonelier than females given a similar family structure. Four, subjects living in single parent households were significantly lonelier than their peers living in two parent households. Five, though not statistically significant, there was a strong trend for subjects for whom English was a second language to report substantially greater loneliness than their peers for whom English was a first language.

## Table of Contents

	<b>Page</b>
ABSTRACT .....	ii
TABLE OF CONTENTS .....	iv
LIST OF TABLES .....	vii
DEDICATION .....	viii
CHAPTER ONE: INTRODUCTION .....	1
Statement of the Problem.....	5
Dependent and Independent Variables.....	6
Objectives of the Study.....	7
Research Questions.....	7
CHAPTER TWO: REVIEW OF RELATED LITERATURE .....	9
Background.....	9
Attachment Theory.....	10
Cognitive Theory.....	15
Adolescence and Loneliness.....	17
Self Concept.....	20
Self Concept and Gender.....	22
Interpersonal Relationships.....	24
Disclosing Loneliness.....	27
Summary.....	31
Research Questions.....	34

CHAPTER THREE: METHODOLOGY .....	35
Research Questions.....	36
Description of Sample.....	37
Definitions of Key terms.....	40
Instruments.....	42
Procedure.....	50
Data Analysis.....	51
CHAPTER FOUR: RESULTS .....	55
Descriptive Analysis.....	55
Regression Analysis.....	64
Analysis of Research Questions.....	71
CHAPTER FIVE: DISCUSSION .....	75
Summary.....	75
Discussion of Results.....	76
Limitations.....	85
Implications for Teachers and Counsellors....	88
Recommendations for Further Research.....	90
Conclusion.....	93
REFERENCES .....	94
APPENDIX A: CONSENT TO PARTICIPATE FORM .....	101
APPENDIX B: WRITTEN INSTRUCTIONS TO PARTICIPANTS ..	104
APPENDIX C: SUBJECT INFORMATION SHEET .....	107
APPENDIX D: SELF DESCRIPTION QUESTIONNAIRE III ....	111
APPENDIX E: LONELINESS SCALE .....	118
APPENDIX F: SOCIOGRAM QUESTIONNAIRE .....	121

APPENDIX G:	LONELINESS SCALE RESPONSE PROFILE .....	124
APPENDIX H:	CORRELATION COEFFICIENTS OF BACKGROUND VARIABLES WITH LONELINESS .....	126
APPENDIX I:	PROFILE OF PARENTS' OCCUPATIONAL PRESTIGE AND MEAN LONELINESS SCORE .....	128

# LIST OF TABLES

Table	Page
4.1 T-Test: Mean Loneliness Score, Standard Deviation T-Value and Difference Expressed as a Fraction of the Pooled Standard Deviation for Gender, Language and Number of Parents .....	57
4.2 Means and Standard Deviations of the Twelve Self Concept Variables and their Correlations with Loneliness .....	61
4.3 Mean Scores and Standard Deviations of Friendship Variables and Correlation Coefficients of Each Variable with Loneliness .....	64
4.4 Principal Components Factor Analysis .....	66
4.5 Parameter Estimates and Standard Errors for Four Regression Models of Loneliness .....	69



Dedicated in memory of my loving canine companion  
Merrynook Bermuda Cedar.

Together we started this journey, but unfortunately try  
as he may, he was unable to see our journey to its end.

## CHAPTER ONE

### INTRODUCTION

Some needs change as life progresses. Loneliness is felt in the infant as a need for contact; in the child, as a need for adult participation in activities; and in the juvenile, as a need for compeers and acceptance. But in the adolescent, loneliness is felt as a need for intimate exchange with a fellow human being. Loneliness is so terrible an experience that it will drive a person to face anxiety in order to make contact with a fellow being. (Sullivan, 1953, p.310)

The above quotation describes the emotional pain of loneliness during adolescence. Since the time of this statement loneliness research has become prevalent, and knowledge about it more extensive. Several common themes in the current literature provide clarity to our understanding of the experience of loneliness. Peplau and Perlman (1982) present three statements that describe these themes. First, loneliness results from deficiencies in a person's social relationships. Secondly, loneliness is a subjective experience, it is not synonymous with objective social isolation. People can be alone without being lonely, or lonely in a crowd.

Finally, loneliness results when a discrepancy between desired and attained emotional connectedness with others exists (p. 2).

Rubenstein and Shaver (1982) identified the following list of feelings and beliefs that portray a subjective description of loneliness:

- I feel depressed, left out, unwanted.
- Sorry for myself; sad.
- My actions feel clumsy and inappropriate.

Physically, I feel as though I'm in the way.

- Bored, drowsy, down.
- I feel sort of empty inside.
- Like I'm evaporating or disintegrating; like maybe I don't really exist. (p. 209)

The experience of loneliness differs from aloneness in several ways. Aloneness "is the objective state of being apart from other people" (Sears, Freedman & Peplau, 1985; p. 205). Being alone can be a positive experience, and often people choose to be apart from others (Sears, Freedman & Peplau, 1985; Suedfeld, 1982). The state of aloneness is traditionally believed to allow our psychological energy to turn inward and encourage creativity in both an introspective sense and in expressive communications, such as art and literature

(Sears, Freedman & Peplau, 1985; Suedfeld, 1982).

In contrast to the objective state of aloneness, loneliness is a subjective experience. Lonely people may not have others physically around them, which may enhance their feelings of loneliness. However, some people also feel lonely even when others are physically close to them. Peplau and Perlman (1982) point out that to objectively evaluate an individual as "not lonely" because they are amongst others does not address the individual's subjective feelings of loneliness (1982; Peplau & Caldwell, 1978). "Loneliness" can be defined as the emotional discomfort experienced by individuals when there is a discrepancy between their desired interpersonal connectedness to others and their attained interpersonal connectedness to others (Brennan, 1982; Peplau & Perlman, 1982; Wood, 1978). This emotional discomfort can range from mild to severe pain.

Almost everyone experiences loneliness at some point in their life (Peplau & Perlman, 1982). This experience is not always detrimental (May, 1983; Peplau, However, loneliness can become a detriment if it creates or maintains difficulties in emotional development (Gerson & Perlman, 1979). The intensity and duration of loneliness feelings determine the severity of the

experience (Peplau & Perlman 1982).

This study examines loneliness as it is experienced by adolescents. When considering adolescent loneliness, it is necessary to be aware of the developmental changes that occur during this time. Because adolescence is a period of rapid emotional, physical and psychological growth, the experience of loneliness is interwoven with these components of development (Brennan, 1982; Csikszentmihalyi & Larson 1984; Kegan 1982). This is a time when a transformation occurs: adolescents begin to shift their primary relationships from a strong emotional dependency on parents to more interpersonal relationships with peers (Brennan, 1982; Kegan 1982). This transition is a growth towards autonomy; that is, a drive toward an individual identity. Along with this growth towards autonomy is a need for the development of interpersonal skills and understanding to promote interpersonal relationships with others (Kegan, 1982; Brennan, 1982). If there is a lack of these interpersonal skills and awareness, a lack of connectedness with others may result, creating feelings of loneliness (Brennan, 1982).

From an existential perspective, the feeling of loneliness can come from an awareness that we are

ultimately separate from others (May, 1983). For adolescents, this realization of separateness from both parents and peers, while seeking individuality, can create feelings of loneliness (May, 1953; 1983).

### **Statement of the Problem**

Wood and Hannel (1977) showed that loneliness is felt extensively during adolescence and early adulthood. Anderson (1985b) concluded that people who experience intense loneliness often react with behaviours that maintain or intensify their feelings of loneliness. Bronfenbrenner (1986) and France, McDowell, and Knowles (1984) found that behaviours related to loneliness include involvement with drug and alcohol abuse, delinquent behaviour, dropping out of school, and suicide. The purpose of this study is to examine the experience of loneliness and identify factors that are correlated with the degree of loneliness that an adolescent experiences. With this understanding, we may be able to identify those adolescents who are struggling with feelings of loneliness, and assist them in dealing with associated difficulties.

### Dependent and Independent Variables

The dependent variable in this study is loneliness. Acknowledging that loneliness may be a part of normal adolescent development, this variable will be measured by degree of the experience, as interpreted by the Revised U.C.L.A. Loneliness Scale (Russell, Peplau & Cutrona, 1980). This loneliness measure includes a number of Likert-type items, each with a range of responses: "never" lonely, "rarely" lonely, "sometimes" lonely and "often" lonely.

There are three groups of independent variables in this study. These include: components of self concept, background information, and friendship variables.

The instrument of self concept employed in this study contains 12 subscales which consider the subject's self perception as it relates to both academic and social circumstances. Also included as independent variables in this study are six background variables: gender, age, language, number of parents, and both parents' occupational prestige.

The third group of independent variables are those measured by the sociogram questionnaire. These include friendships within the surveyed classroom and mean

closeness of these friendships.

There are also two constant variables in this study. First, that each subject who took part was a grade 10 student. And second, that every student was enrolled in a secondary school in Surrey School District, Surrey, British Columbia.

### **Objectives of the Study**

The objectives of this study are:

1. To examine the extent of loneliness in adolescence.
2. To investigate the relationships between loneliness during adolescence and components of self concept, age, gender, language, number of parents, parents occupational prestige, friendships in the classroom and the mean closeness of these friendships.

### **Research Questions**

In this study the dependent variable is loneliness and the independent variables are components of self



concept, friendship and background information. The research questions of this study are:

1. To what extent is loneliness prevalent in a sample of Grade 10 adolescents?
2. Which of the independent variables or combination of these variables best predict loneliness?  
(excluding the two friendship variables).
3. Do classroom friendships and the closeness of these friendships have a significant relationship to the degree of loneliness experienced?

## CHAPTER TWO

### REVIEW OF RELATED LITERATURE

The topic of loneliness has been present in literature for many years, though more common in the last decade. The review of related literature presented here includes descriptions of current loneliness theories and related areas to loneliness relevant to this study. This review begins with a brief background discussion of early psychodynamic views and Existential theory. This will be followed by the main focus of discussion, Attachment theory and Cognitive theory. In addition, adolescence and loneliness, self concept, interpersonal relationships and loneliness, and the disclosure of loneliness are discussed. The last section in this chapter presents the research questions investigated in this study.

#### Background

Historically, the psychodynamic model emphasized an individual's personality traits and childhood experiences. Loneliness was not seen as a positive

experience. Most evidence for this theory was gathered from clients in clinical settings, generating the belief that loneliness was pathological in nature (Fromm-Reichman, 1959).

In contrast to psychodynamic beliefs, existential theory considers loneliness a positive and common experience (May, 1983). May (1983) believes a major life task of individuals is to become aware of, and accept their ultimate aloneness. For with this awareness we accept our self responsibility for life. Because loneliness is considered a natural part of development, antecedents to loneliness do not seem important. Frankl (1963) describes loneliness as a natural inborn condition of life. When loneliness is a problem, the resolution lies within the individual.

### **Attachment Theory**

A primary theme in attachment theory is the belief that there are two distinct types of loneliness; transitory and chronic (Hojat, 1987). Because the contributing causes of transitory loneliness are distinct from chronic loneliness, so are the theoretical frameworks and interventions. Hojat (1987) suggests that

transitory loneliness is due to external occurrences such as the loss of a significant other, the ending of a relationship, or changing places of residence or schooling. Clarifying and acknowledging feelings of loss are a likely goal of intervention. An example of this is acknowledging the loss of a significant other, and working through the stages of grief. Transitory loneliness is also viewed as a natural part of development or life task.

Chronic loneliness differs from transitory loneliness as it is considered to have roots in early childhood attachments (Hojat, 1987). There are two primary means by which this can occur: one being when the primary caregiver/infant bond is broken or significantly interrupted, such as when a primary caregiver dies; second when an emotionally unhealthy tie exists between the primary caregiver and child. When such a "disturbed tie" exists, the child is likely to experience "unsatisfactory fulfillment of the needs for contact, intimacy and social stimulation" (Hojat, 1987, p. 94). As adults, these individuals may feel emotionally detached from others because of their fear of being rejected and anxiety with forming emotional intimacy with others (Hojat, 1987).

The attachment theory of loneliness is particularly important in terms of treatment for chronic loneliness. The emphasis of treatment is for the client to become involved in a therapeutic relationship (Hojat, 1987). The client is given the opportunity to work through their internalized fears and needs surrounding intimacy, within the client-therapist relationship. Hojat (1987) further suggests that this process include clarifying self-object differentiation and cognitive-behavioral techniques to "reconstruct a new self image in relation to others" (p. 98).

Recent research by Schultz and Moore (1987) identified two distinct parental patterns which significantly affects the parent and child relationship. These are: acceptance-rejection referring to "the degree to which parents show love and respect for their child", and permissive-restrictive referring to "the degree to which parents allow their child autonomy and freedom in their behaviour" (Schultz et al., 1987; p. 38). These researchers suggest that if the parent and child relationship is exhibited as an extreme in any of these two patterns an emotionally unhealthy relationship exists, thus creating for the child or adolescent circumstances encouraging emotional distance or

disconnectedness from others.

Attachment research by other investigators has shifted the focus away from parental patterns to styles of infant/child attachment. Ainsworth, Blehar, Waters and Wall (1978) identified three patterns of infant/child attachment styles: secure attachment, anxious ambivalent attachment and avoidant attachment. Secure attachment "is characteristic of infants whose primary caregiver is generally available and responsive to the infants needs" (Shaver & Hazan, 1987, p. 110). Anxious/ ambivalent attachment "is characteristic of infants whose primary caregiver is also anxious and seemingly out of sync with the infants needs, being sometimes available and responsive but at other times unavailable or intrusive" (Shaver & Hazan, 1987, p.110). This attachment pattern places the baby in a self - protective emotional state of "protest". The third attachment pattern of avoidant attachment "is characteristic of infants whose primary caregiver is generally unresponsive if not outright rejecting" (Shaver & Hazan, 1987, p. 110). This third pattern places the baby in a self protective emotional state of "detachment" (Bowlby, 1969, 1973, 1980). Shaver and Hazan (1987) found that individuals who developed the

later two attachment styles and their accompanying self protective states were more likely to experience loneliness as adults.

Attachment styles established during childhood become a significant part of our psychological makeup, effecting our attachments throughout our adult lives (Shaver & Hazan, 1987). This is particularly true during adolescence when interpersonal relationships with peers become a prevalent part of emotional development (Kegan, 1982). As discussed by Sullivan (1953) intimacy with a friend becomes a very powerful need for the preadolescent. The experience of a close friendship during this period is considered to be so important that Sullivan (1953) asserted that a person who did not have a fortunate experience with another person during this period was never able to maintain good relationships with peers in later life or to feel at ease among strangers.

The effect of attachment styles on interpersonal relationships is outlined by Shaver and Hazan (1987) in terms of a cycle of life goals. Attachment is one segment of a cycle which includes exploration, caregiving, sexual mating and affiliation (Bowlby, 1973; Shaver & Hazan, 1987). The component of attachment

occurs first, therefore the strengths and weaknesses of attachment have a significant effect on the development of the remaining components in this cycle (Shaver & Hazan, 1987). If the attachment component is threatened then the following systems of exploration, caregiving, sexual mating and affiliation will in turn be adversely affected.

### Cognitive Theory

The cognitive perspective does not consider the experience of loneliness to be positive, but loneliness is viewed as a normal and natural experience of life (Peplau & Perlman, 1982). Antecedents to loneliness can be due to situational events, an individual's personal characteristics, or a combination of both these. The influence of early childhood experiences are recognized, but the individual's cognitive thought processes are posited as the main influence. Brennan (1982) and Wood (1978) suggest that lonely individuals are those who experience a discrepancy between their desired and attained interpersonal connection with others. Therefore, social isolation does not create loneliness unless the individual desires a higher level of social



interaction. Being physically apart or alone from others does not equal loneliness. Peplau and Caldwell (1978), found some socially-isolated people adopt their needs for contact with others in order to deal realistically with their situations. If they were in a situation where contact with others was limited, they lowered their expectations for contact. In the cognitive perspective, external observations are not a basis for evaluating loneliness (Peplau, Miceli & Morasch, 1982). Cognitive beliefs and desires of the individual are what determines their experience of loneliness.

A key facet in understanding the cognitive process of loneliness is attribution theory. Anderson and Arnoult (1985a), suggest that an individual's cognitive perception of self in relation to others and the individual's cognitive processing of life events may be the key to understanding lonely, shy, and depressed individuals. Anderson and Arnoult (1985b) suggest that "depressed, lonely and shy people consistently express their successes and failures in a self-defeating way; they have a maladaptive attributional style" (p. 17). Attributional patterns of individuals were found to "influence their affective reactions to loneliness,

their self esteem and their coping behaviour" (Peplau & Perlman, 1982; p. 12). As a result of their dysfunctional attribution style, lonely individuals are evasive toward social situations which would allow opportunities for interpersonal rapport (Anderson and Arnoult, 1985a). This lack of interpersonal connection with others, serves to maintain the cycle of loneliness.

### **Adolescence and Loneliness**

The focus of this study is loneliness as it is experienced by adolescents. Thus, it seems appropriate to explore the developmental changes which occur during adolescence in order to understand loneliness during this time.

Aspects of social roles, expectations from parents and society, and relationships with peers and parents become part of the complex development during adolescence (Brennan, 1982; Kegan, 1982; Csikszentmihalyi & Larson, 1984). Because of the intensified transition of independence and autonomy from parents, the peer environment becomes important. (Kegan, 1983; Brennan, 1982). Developmentally, there is a

transition from a role-oriented focus of behaviour (Imperial Stage) to that of a more intimate interpersonal style of relating to others (Interpersonal Stage) (Kegan, 1982). Adolescents progress from belonging mainly to a group of friends to add individual interpersonal relationships with others, which requires increased interpersonal skills and understanding of self in relation to others. Kegan (1982) suggests that times of transition between the Imperial and Interpersonal stages of emotional development can be experienced as difficult and troubled. Adolescents who do not develop their interpersonal awareness at the same rate as their peers may experience loneliness as friends shift their focus towards others who are maintaining interpersonal relationships. Adolescents who are shifting away from the role-oriented stage of social interaction to one that is interpersonally focused may experience a transition time when they are between the two stages. They may feel lost and disconnected, resulting in feelings of loneliness. A transition also occurs in relation to parents, as there is a need for the adolescent and parent to expand their ways of communicating with each other. The parent/child relationship is reconstructed to one of more equality

and reciprocity (Kegan, 1982). If this is not a smooth transition, the sense of emotional disconnectedness from parents may lead to loneliness.

Hojat (1982) investigated childhood relationships of lonely adults and found that relationships during childhood were an important influence on loneliness. In a survey of college subjects, Hojat (1982) reported that adults who had emotionally distant relationships with, and felt misunderstood by their parents as children, were at risk for experiencing loneliness as adults. This same study also found that those who did not communicate and share their feelings with peers as children were at greater risk of experiencing loneliness. A link was established between emotionally distant relationships with peers or parents, as children, and loneliness experienced as adults (Hojat, 1982).

Findings such as those by Hojat (1982) demonstrate the importance of investigating loneliness during childhood and adolescence. Goswick and Jones (1982) state two reasons to further loneliness research during these developmental periods. First, the results to date link adult loneliness with difficult childhood and adolescent relationships. Secondly, loneliness has been

identified as more common during adolescence than other age group.

Because styles of interpersonal communication are learned in our family homes, adolescence is a crucial time to clarify difficulties with interpersonal relationships and introduce interventions (Goswick & Jones, 1982).

### Self Concept

There are several ways by which we develop our concept of self. One important part of this process is introspection (Gergen & Gergen, 1981, 1986). We begin to know ourselves, taking time to think about and formulate our values, beliefs and feelings. The second major part of forming a self concept is when we explore who we are in relation to others. This includes an awareness of how we are different from others. How others view and react to us influences the formation of our concept of self.

This is particularly so in adolescence when the main need is for intimate relations with others. In these relations the adolescent's self-system is open to appraisals from the other person that may well be different from

the self-appraisals received from parents earlier in life. Thus, many distorted views the child might have of himself are open to correction by the views of peers. From this stage onward the growing person is open to experience loneliness. Loneliness is even more distressing an experience than anxiety, so the person may be driven to closer relationships with others, and the possibility of a change in his self - system in spite of the anxiety such a change brings with it. (Sullivan, 1953, p. 953.)

As children grow through adolescence, the transformation towards autonomy often means their self concept is radically changed (Brennan, 1982). The emotional, psychological and social concepts of self, molded during early childhood, become deficient during adolescence (Brennan, 1982; Rappaport, 1972). As a result adolescents have the task of reformulating their concept of self to accommodate the physiological, emotional, and social changes which occur during this developmental period. (Brennan, 1982; Rappaport, 1972).

The feelings we associate with our self concept defines that concept (Gergen & Gergen, 1986). If the associated feelings are positive, a positive self concept exists; if the feelings are negative, a negative self concept exists (Gergen & Gergen, 1986). Negative self concept can be part of a cycle which creates and

maintains loneliness (Goswick & Jones, 1981). Goswick and Jones (1981) found that college students who reported being lonely had as much opportunity for social contact as students who reported not being lonely, suggesting that lonely individuals may be inhibited by a negative self concept in their attempts to initiate interpersonal relationships. Goswick and Jones (1981) suggest that individuals act according to their "phenomenological reality" (p.238). If this reality includes a negative concept of self, and self in relation to others, then the individual hesitates to risk interpersonal involvement. Lonely subjects were found to be focused on their negative perception of self, and therefore not open to more positive feedback from others.

### **Self Concept and Gender**

Social expectations are a major influence upon our concept of self (Anderson 1985; Brennan, 1972; Peplau & Perlman, 1979; Rubin, 1982). During adolescence the search for an individual identity is heightened as is one's awareness of masculine/feminine roles. There is a strong influence of gender stereotyping in North

American society. Often ideal images are presented through the media, school system, parental and societal expectations.

The strength of social influence becomes apparent in research which relies on self reports, as loneliness research does. In the past significant gender differences were not found in reported loneliness (Russell, Peplau & Cutrona, 1980). However, Borys and Perlman (1985) reviewed 39 studies of loneliness, in which there were often no gender differences in reported loneliness, although there were identifiable trends in studies where interviews were conducted and subjects asked to label themselves as lonely, females reported heightened loneliness more frequently than males. However, in studies in which a questionnaire format was used that asked questions related to loneliness but not if the subject was actually lonely, males reported greater loneliness than females. The Revised U.C.L.A. Loneliness Scale (Russell, Peplau & Cutrona, 1980) is one of the instruments which generally reveals males as reporting greater loneliness than females.

Social influence is a significant contributor to gender differences in the disclosure of loneliness feelings (Borys & Perlman, 1985). They suggest our



social structure is less accepting of males who acknowledge their loneliness. Fearing the negative responses of society, males conform to expectations of sex role stereotypes dictating "it is unacceptable for males to express emotional weakness or distress" (p. 73). In a related study Berg & Peplau (1982) found that "psychological masculinity and femininity" influenced loneliness (p. 624). Subjects who were classified as psychologically androgynous, "scoring high on both masculine and feminine traits" were the "least likely to feel lonely" (p. 626).

### **Interpersonal Relationships**

Solano (1987) integrated measures of locus of control and attribution style to investigate their relationship with loneliness. Over a period of nine years, data were collected on 2,143 first-year college students. The general results indicated that "lonely persons see social success and failure as being associated with uncontrollable sources, the actions of powerful others, the difficulty of the task, the influence of chance, and unchangeable aspects of self" (Solano, 1987, p. 210). Lonely subjects are described

as not seeing themselves in control and not wanting to be in control in interpersonal relationships. Solano attributes gender differences in the study to gender role expectations. Lonely female subjects tended to have low need for control only in romantic relationships. Lonely male subjects did not believe they had control nor did they want control in social situations.

Williams (1983) investigated loneliness in delinquents as a measure of needs for affection, inclusion and control. The 98 subjects ranged in age from 12 to 18 years. Williams (1983) found that issues of control in interpersonal relations were significantly related to loneliness. The desire to be controlled by others, or to control others in social interaction, was related to the degree of loneliness experienced. If a subject was assessed as having a medium to high need to control others or to be controlled by others, and this need was unfulfilled, then more loneliness was likely to occur than those with low needs in the dimension of control.

Williams' findings (1983) are in contrast to Solano's (1987) in regards to desires for control or to be controlled by others in interpersonal relationships.

There may be several explanations for these different findings. First, the Solano study involved college students while Williams' study involved 12 to 18 year-old adolescents. Secondly, Solano's study included substantial numbers of each gender, whereas Williams study included a total of 98 subjects, of which 78 were male. These differences in age and gender of participants may have contributed to the contrasting results.

In a slightly different approach to clarifying the interpersonal desires of lonely people, Horwitz and French (1979) investigated aspects of socializing in 479 university students. Horowitz employed a loneliness measure, with a list of 100 interpersonal problems that required the subject to sort and arrange the list of problems from the least to most familiar. The results indicated that the most frequent interpersonal problem for lonely individuals is inhibited sociability. Lonely and not-lonely subjects differed on two dimensions of inhibited sociability; friendliness and control. On the dimension of friendliness, lonely subjects experienced problems with being friendly, while non-lonely subjects experienced difficulty with being hostile. On the dimension of control, non-lonely individuals had

difficulty controlling situations, while lonely individuals had difficulty not controlling situations. The study by Horowitz et al. (1979) tends to support the findings of Williams (1983) who found subjects, with a medium to high need to control or to be controlled by others, were most likely to experience loneliness, if their needs surrounding control were not met.

### **Disclosing Loneliness**

In their article "The Revelation of Loneliness," Perlman and Joshi (1987) discuss four separate explanations of why people may not disclose their feelings of loneliness. Firstly, the negative social stigma surrounding loneliness discourages the disclosure of feelings. Secondly, people may lack self awareness or understanding of the phenomenon in order to label the experience as loneliness. Thirdly, many people may hesitate to disclose loneliness, because they feel they should be self sufficient and not depend on others emotionally. Fourthly, people may feel discouraged or pessimistic that other people would care enough to respond to them (Perlman & Joshi, 1987). They point out that the emotional pain of loneliness as well as

personal beliefs that there are others who can help, encourage disclosure of loneliness feelings. Common factors that influence the revelation of loneliness include: 1) others who are experiencing similar feelings, 2) others who are trustworthy, and 3) others who we are either intimately connected to, or those who are strangers to us.

When investigating children, self-disclosure of loneliness is an important consideration for researchers. Often there is substantial dependency on external observations to determine which children are in need of intervention in regards to their social relationships. Considering the knowledge that the number of friends or social contacts is not a reliable indication of loneliness in adults (Peplau & Perlman, 1982) when considering loneliness of children and adolescents, measurement can be a problem. To clarify whether external observation of children requiring intervention with social relationships was appropriate according to the child's subjective view, Asher, Hymer and Renshaw (1984) studied 522 subjects from grades three to six. Employed in this study was a loneliness measure, a self report measure of peer relations satisfaction, and a sociometric measure. Results

indicated that those children who were least accepted by peers or scored low in sociometric measures were in fact those who reported more peer relations dissatisfaction and loneliness. Thus, it appears that external observations of children with social difficulties, and sociometric measures of peer status are legitimate means of assessment. Perhaps children do not have the ability to give the impression of social inclusion when they do not feel satisfied with their peer relations. Adults may be more astute at looking satisfied with social relations while feeling dissatisfied. The influence of the social stigma surrounding loneliness may be stronger for adults than children. Asher et al. (1985) found low social status children were reluctant to admit feelings of social dissatisfaction and loneliness. Also identified was the influence of friendships in other classes or in their home neighbourhoods, which subjects depended on for companionship. Asher et al. (1984) felt that this second factor may explain why those identified as low in classroom social status did not report more peer relations dissatisfaction and loneliness. The relationship among these variables were modest. A further explanation for this modest relationship, which was not discussed by Asher et al. (1984), is the role of

fantasy and imaginary friends. Watkins (1986) suggests imaginal others persist throughout our lifetime changing and becoming more sophisticated as do our needs, helping us to assimilate reality. If children are socially unpopular, lonely, or living in emotionally distressed situations they may cope by enriching their lives with imaginal others. For example, children who grow up in the disarray of an alcoholic family may cope emotionally by reconstructing fantasy parents who provide the nurturing their alcoholic parent or parents are not able to give (Middleton-Moz & Dwinell, 1986). Watkins (1986) also identifies imaginal others and their dialogue as a means of working through feelings of anger towards significant others without retrobution. In regards to loneliness, daydreams and imaginery friendships would allow adolescents to practice dialogue without risking rejection by peers.

The Asher, Hymel and Renshaw (1984) study also identified a distinction between neglected and rejected peers. In a later study, Asher and Wheeler (1985) pursued the clarification of the soical status of neglected and rejected peers, as separate groups. Their study involved ratings of attained... Results indicated that the rejected status group was significantly more

lonely than other groups. Children who extended themselves in a social context but were rejected by peers were more likely to feel lonely than those, who were neglected socially, but by not attempting to interact did not experience rejection by peers. Neglected peers may be objectively rated as socially isolated but not report dissatisfaction with relationships because they don't risk initiating contact, therefore escape the emotional pain of rejection.

### **Summary**

Theoretical constructs of the experience and conditions of loneliness include psychodynamic views, cognitive/social learning theories and attachment theory. Although each theory is distinct there are common threads which run through them. As an example, early childhood patterns of interpersonal relationships, self concept, attachment, bonding and intimacy have a significant effect on the degree and extent of loneliness we experience.

Current research has recognized the distinction between transitory and chronic loneliness. Transitory



loneliness is often the result of an environmental loss, or the loss of a relationship. Chronic loneliness is more deeply rooted in the concept of self and interpersonal relationship styles with others. As a result, chronic loneliness is more difficult to intervene in, and thus a significant focus of current research.

The developmental changes during adolescence have a significant role in research on loneliness with this age group. Interpersonal skills and awareness, a heightened sense of self, growth towards autonomy, and physical changes are predominant during this period. Current research has found that patterns of attachment during childhood and adolescence are of particular importance to later experiences of loneliness (Hojat, 1987). Interpersonally, issues with control, self concept, and communication have an impact on the individual's ability to initiate and maintain emotionally intimate relationships.

Studies of gender differences in loneliness identified issues of control in interpersonal relationships, and styles of disclosing loneliness as being gender different. The social stigma associated with loneliness was shown to influence patterns of

disclosure. Current research relies heavily on self report measures, which can be greatly effected by the social stigma surrounding loneliness.

In research with children (grades three to six), external observations are an acceptable means of assessing children requiring intervention in a social interaction context. But a further distinction between children who are rejected or neglected by peers is necessary to identify children who are experiencing loneliness. Children not included socially by peers are found to be loneliest when they experience social rejection. Those who do not risk rejection by extending themselves socially are not likely to have as much difficulty with loneliness feelings.

### Research Questions

This review of literature gives rise to the following research questions:

1. To what extent is loneliness prevalent in a sample of Grade 10 adolescents?
2. Which of the independent variables or combination of those variables best predict loneliness? These independent variables include subscales of self concept, factors scores derived from the original subscales, and background information of age, gender, language, number of parents, mothers' occupational prestige and fathers' occupational prestige.
3. Do the variables classroom friendships and closeness of these friendships, have a significant relationship to the degree of loneliness experienced?

## CHAPTER THREE

### METHODOLOGY

The purpose of this study was to examine the experience of loneliness and identify factors that are correlated with the degree of loneliness that an adolescent experiences. The factors investigated for their relationship to loneliness were facets of self concept, background information and classroom friendships.

The subjects in this study were adolescents attending Grade 10 classes in Surrey School District. Formal written permission to conduct the study in this school district was received prior to initiating the study.

A cross-sectional survey design was chosen because the primary goal was to investigate the relationships of psychological variables already in existence without any manipulation of these variables. The survey included three attitude scales and a questionnaire pertaining to background information of the subjects. A loneliness scale was employed to measure the degree of loneliness

expressed by each subject. A multi-faceted measure of self concept was also included to measure 12 areas self concept. A third instrument gathered data describing relationships with classroom peers.

The statement of the research questions, a description of the sample and the procedure for its selection, definitions of key terms, a description of the instruments, and the procedures for data processing and analysis are presented in this chapter.

### **Research Questions**

The dependent variable is loneliness and the independent variables: age, gender, number of parents, language, mothers' occupational prestige, fathers' occupational prestige, math self concept, physical appearance self concept, academic self concept, verbal self concept, problem solving self concept, physical ability self concept, relations with same sex peers self concept, relations with opposite sex peers self concept, relations with parents self concept, honesty self concept, emotional stability self concept, general self concept, self concept factor scores derived from a factor analysis of an adaption of the S.D.Q. III,

classroom friendships and the closeness of these friendships. The research questions of this study are:

1. To what extent is loneliness prevalent in a sample of Grade 10 adolescents?
2. Which of the independent variables or combination of these variables best predict loneliness? (excluding the friendship variables).
3. Do classroom friendships and the closeness of these friendships have a significant relationship to the degree of loneliness experienced?

### **Description of Sample**

#### **Sample Selection**

One hundred and sixty-six grade 10 students from three secondary schools in Surrey School District volunteered to take part in this study. Included were one high, one medium, and one low socio-economic status (SES) area school. The socio-economic status of the school areas were based on information obtained from the School District's Planning Department. Their source of

data was the 1981 Canada Census. A total of nine classes from three different secondary schools were chosen to strengthen the generalizability of the results.

The principals of each secondary school were contacted, given a brief description of the study, and were asked for permission to have the study conducted in their school. After deciding to allow the survey, each principal asked for teachers to volunteer some classroom instruction time. In the low SES area school, two classes were surveyed. These included 40 subjects. The medium SES area school contributed three classes totalling 72 subjects, and the high SES area school contributed four classes, with a total of 54 subjects. The total number of subjects was 166.

The study was introduced to the students by their regular classroom teacher. At that time, the students were given a letter of introduction to be taken home to their parents or guardian. All who wished to participate were required to have their parent or guardian read the introductory letter and return the consent form signed by themselves and their parent or guardian. Included in the letter was a statement that informed the potential participant of their right to refuse to take part or answer any question, and the

option to withdraw at any time without repercussions.

Only the students who completed and returned a signed permission slip were allowed to take part. Because of the design of the study, the students were surveyed in a class unit. Those students who did not take part worked quietly and independently while the survey was completed. The percentage of participants which took part in the study is discussed in chapter Five.

### **Sample Description**

All participants in this study were students in Surrey School District, Surrey, British Columbia. Surrey is an incorporated city with a youth population (birth - 18 years) of approximately 57,815 in 1988. The total number of students enrolled in Surrey School District in 1988 was 35,537. This district is the second largest in population in the province of British Columbia. Surrey is located approximately 20 miles from Vancouver, and includes a mix of high density and rural residents.

Of the 166 subjects who took part, 100 were female, and 66 were male. English was the most frequently



spoken language in the homes of 151 of the participants, while a language other than English was most frequently spoken in 12 of the homes. Mothers were present in 151 of the participants' homes while fathers were present in 125 of the homes. One hundred and fourteen participants reported two parents present in their home, 52 reported one parent present. Grandparents were also present in 15 of the homes. Forty nine percent of the subjects in this study reported having one or more sisters, while 58 percent reported one or more brothers. Age of subjects range from 177 months (14.8 years) to 222.0 months (18.5 years). The mean age for the total sample was 192.0 months (16 years) with a standard deviation of 6.24 months.

### **Definitions of Key Terms**

#### **Loneliness**

Loneliness can be defined as the emotional discomfort experienced by an individual when there is a discrepancy between their desired interpersonal connectedness to others and their attained interpersonal connectedness to others (Brennan, 1982; Peplau &

Perlman, 1982; Wood, 1978). Salder and Johnson (1980) suggest that this disconnectedness can be from more than just people: it may be disconnectedness from community, roots, or one's self. This lack of connection may be the result of the bond being broken, or never having been formed.

In this study, the degree of loneliness experienced by the subjects was determined by the use of the Revised U.C.L.A. Loneliness Scale (Russell, Peplau & Cutrona, 1980; Appendix E).

### **Self Concept**

Self concept can be described as the individual's perception of self in relationship to their environment (Shavelson, Hubner, & Stanton, 1976). In an attempt to assimilate self and environment, an individual interprets and reasons their experiences of the world around them to form a concept of self. This formation of self concept is strongly influenced by significant components of a person's environment such as parents, extended family, peers, community and level of education. Considering the many facets of environment

and its influences, concept of self is multi-dimensional (Marsh & Shavelson, 1985). In this study a modified version of the Self Description Questionnaire III (Charlton, 1987) was used to measure self concept.

### **Adolescent**

An adolescent is defined in this study as an individual between the ages of 13 and 19 who is legally a minor. In this sample the adolescents varied in age from 177.0 months (14.8) to 222.0 months (18.5 years).

### **Instruments**

#### **Revised U.C.L.A. Loneliness Scale**

The dependent variable in this study was loneliness. The degree of loneliness experienced by each subject was determined by the U.C.L.A. Loneliness Scale.

The Revised U.C.L.A. Loneliness Scale (Russell, Peplau & Cutrona, 1980) was chosen because of its high validity and reliability. Russell (1980) found the scores of this instrument to "correlate significantly with feeling abandoned, depressed, empty, hopeless, isolated, and self-closed, and with not feeling sociable

or satisfied" (p. 475). Although the Revised U.C.L.A. Loneliness Scale was found to correlate with depression, anxiety and self-esteem, Russell, et al (1980) established the discriminant validity of this instrument. The Revised U.C.L.A. Loneliness Scale was more highly correlated to an index of self-reported loneliness ( $r=.71$ ) than measures of personality and mood. Discriminant validity was also indicated by the following: "loneliness scores were still significantly related to the amount of time spent alone each day, the frequency of eating dinner alone, the number of close friends, and the person's marital or dating status", even after controlling for mood and personality variables (Russell, Peplau & Cutrona, 1980, p. 95). The reliability of this scale was established by a recorded .94 coefficient alpha for internal consistency.

This scale consists of 20 statements, 10 of which are positively worded, and 10 negatively worded. Subjects are asked to respond to each statement based on a four-point scale ranging from Never (1) to Often (4). This scale was developed by Russel et al. to measure the degree of loneliness experienced by individuals. Although widely used with the adult population, this scale has also been successfully employed to measure

loneliness among adolescents (Franzoi & Davis, 1985; Goswick & Jones, 1982). For a presentation of this instrument and the indicated reverse polarity items see Appendix E.

The scoring of this instrument began with reversing the responses to the 10 reverse polarity items. The total score on this instrument was used as the loneliness variable. High loneliness scores indicated high degree of loneliness while low scores indicated low loneliness. A profile of the sample's responses to the Revised U.C.L.A. Loneliness Scale is provided in Appendix G. This profile includes the choice of responses to each item, the average response of each item, and the mean and standard deviation of the total test.

### **Self Description Questionnaire III (S.D.Q. III)**

Several independent variables were incorporated in this study. Included are 12 sub-scales of self concept, each considered an independent variable. Math, physical appearance, academic, verbal, problem solving, physical ability, relations with same sex peers, relations with opposite sex peers, relations with parents, honesty,

emotional stability and general self concept.

The instrument used to measure these 12 dimensions of self concept was a modified version of the S.D.Q. III (Marsh & O'Neill, 1984; Appendix D). The original instrument consists of 13 sub-scales of: religion, academic, general, verbal, math, problem solving, physical ability, physical appearance, relations with same sex peers, relations with opposite sex peers, relations with parents, honesty, and emotional stability. Subjects are asked to respond to the items of this instrument based on an 8-point scale which range from definitely false (1) to definitely true (8). High scores are interpreted to mean the subject has a positive self concept and low scores a negative self concept.

The theoretical foundation of the S.D.Q. III is based on Marsh and Shavelson's (1985) multi-faceted, hierarchical framework of self concept. They believe that self concept cannot be evaluated effectively unless a multi-dimensional approach is employed.

Marsh and O'Neill (1984) provide evidence of the reliability and validity of the 13 dimensions of the S.D.Q. III. They found the "the reliabilities of the 13 factors were very high (median alpha = 0.89) and

correlations among the factors were low (median  $r=0.09$ )" (Marsh & O'Neill, 1984, p. 153). Their study also established the substantial correlations between the S.D.Q. III and other self concept measures, including the Tennessee Self Concept Scale (Fitts, 1965). The validity of the S.D.Q. III was also confirmed by analyzing results of the measurement to external observations ratings (Marsh & O'Neill, 1984).

A modified version of the S.D.Q. III was employed in this study. A previous study by Charlton (1987) used this modified version which deleted the religion sub-scale and reduced the remaining 12 sub-scales to include only 6 items each with the exception of the general and honesty sub-scales which contained 8 items each. These changes reduced the total number of items on the instrument to 76 from an original 136. Approximately one half of the statements are scored in reverse polarity.

There were several reasons for using the shortened version of the S.D.Q. III measure for this study. As discussed by Marsh (1987), the S.D.Q. III is best suited to subjects 16 years or older who have a fluent understanding of the English language. He further points out that considering these two factors, subjects

may require 30 minutes or more to complete the measurement. The population included in this study was not controlled for English fluency or age of subject. Therefore there was the threat that subjects would not have enough time to complete this measurement as well as the three other measures involved in the allotted time. In order to ensure completion of all questionnaires, the shortened number of 76 items from the S.D.Q. III were employed.

To score this instrument, items which required their responses to be reversed in polarity were addressed first, then the raw data were grouped into their appropriate sub-scale. Each sub-scale was then totalled. Because the sub-scales of general and honesty included 8 instead of 6 items as did the other 10 subscales, the means and standard deviations for each 8 item scale (general and honesty) were multiplied by .75. This allowed a common comparison of the descriptive statistics of the 12 sub-scales of self concept measure. The instrument and the reverse polarity items are presented in Appendix D.



## **Sociogram Questionnaire**

A second group of independent variables pertained to components of friendship. These variables were each subject's total number of friendships in the surveyed class and mean closeness of those friendships. The data for these variables were gathered by the Sociogram Questionnaire developed for this study (Harward, 1988; Appendix F).

As previous research revealed, loneliness is often accompanied by an individual's high desire for interpersonal connectedness with others but a low actual attainment of that connectedness (Brennan, Peplau & Perlman, 1982). The developmental issues of social awareness and interpersonal connectedness to others become prevalent during adolescence (Kegan, 1985). The creation of the sociogram was based on these theoretical concepts. The sociogram was constructed to provide us with a sample of the number of classroom friendships of the subjects and their subjective evaluation of the intensity of those relationships.

Several strategies were employed to score this questionnaire. For the number of friends in the surveyed classroom subjects could list 0 - 9 friends. Only those

names that were verified as being classmates were included in the data. Listed friends which were outside of the surveyed classroom were eliminated from the subject's list. The score was the total number of classroom friends.

The scoring of the mean closeness variable was very straightforward. The subjects had a choice of 4 points on a scale ranging from not close (1) to very close (4). The subject's scale rating was used as raw data. The final step of this variable was determining the mean closeness score for each subject in relation to their friends.

### **Subject Information Sheet**

Six background variables: age, gender, language, number of parents, mothers' occupational prestige and fathers' occupational prestige comprised the third group of independent variables. The data for these variables were gathered by the Subject Information Sheet (Appendix C) which consists of five questions. The variables age, gender and number of parents were posed as direct questions.

The variable language, was interpreted from the

subject information sheet by determining whether English or another language was most frequently spoken in the adolescent's home. Parents' occupational prestige was determined by having each subject select a job category that best described their mother's and/or father's occupation. These categories were then interpreted according to "The 1981 Socio-Economic Index for Occupations in Canada" by Blishen, Carroll and Moore (1987). Each category presented in the parent's occupation question was assigned a scaled score calculated by averaging the prestige values of all occupations of the Blishen Scale (1987) within each category (Willms, personal communication, December 5, 1988).

### **Procedure**

The four questionnaires used in this study were presented to the subjects in a stapled booklet form. Each booklet presented the Subject Information Sheet (Appendix C) first, followed by the self concept measure (Appendix D). The last two instruments, the loneliness scale (Appendix E) and the friendship measure (Sociogram Questionnaire; Appendix F) were included in mixed order.

Some booklets contained the loneliness scale followed by the friendship measure, other booklets presented the friendship measure first and the loneliness scale last.

Instructions to the subjects were presented in a standardized format to each class. Written instructions for each questionnaire were included in the booklet of questionnaires, and verbal instructions were provided by the administrator to ensure the measures were completed in the correct manner (see Appendix B).

The survey was conducted in class groups. Each class' survey booklets were completed within a one hour period including instructions to subjects and debriefing after all booklets were completed. The surveys were completed anonymously. Each class that took part was surveyed within a two week period, beginning the last week of May 1988 and ending the first week of June 1988.

### **Data Analysis**

#### **Processing**

Each completed survey booklet was assigned a unique identification code based on the school, class, and randomly assigned subject number within class. The data could be compiled as a sample total or according to an

individual school or class. After each individual identification code was entered, the subject's raw data were entered directly into the computer. The statements in the self concept and loneliness measures which were reverse polarity were identified and the response value changed accordingly. The self concept data were then grouped into the 12 individual self concept subscales.

### **Analysis**

The data from the four instruments employed in this study were analyzed using the LERTAP (Nelson, 1974) and SPSS-X (Lai, 1986) programs on the University of British Columbia mainframe computer. The steps of analysis included descriptive statistics of each variable, then inferential statistics of independent variables with the dependent variable loneliness. The final and key analyses to this study was the regression of loneliness scores on the relevant independent variables.

The descriptive analysis used the LERTAP program (Nelson, 1974) to examine the distributions of the dependent and independent variables. The distribution, mean and standard deviation of all variables were estimated. T-test calculations for significant differences in loneliness were then calculated for the

demographic variables of gender, language and number of parents.

Correlation coefficients between the dependent variable loneliness and the independent variables were also estimated. These independent variables included the 12 sub-scales of self concept, the six background variables, and the two friendship variables.

The final step of analysis was the regression of loneliness scores using the SPSS-X Regression program (Lai, 1986). A factor analysis of the 12 sub-scales of self concept was performed prior to the regression analysis. There are two reasons for performing this factor analysis of the 12 self concept variables. First, the large number of self concept variables may mean these variables are intercorrelated, which could cause a problem with collinearity (Chatterjee & Price, 1977). If colinearity exists, the regression coefficients would have large standard errors, reducing the strength of inference of the data (Chatterjee & Price, 1977). The factor analysis of the variables produced a new set of variables that are uncorrelated, and therefore eliminates the risk of colinearity. The second reason for the factor analysis was to increase parsimony among the variables. The factor analysis

reduced the set of 12 variables to a set of four factors.

After completion of the factor analysis, four regression models were run. These included different combinations of the independent variables as predictors. The independent variables included were the original 12 self concept variables, the derived four self concept factor scores, and the five background variables. The two friendship variables were not included in the regression for two reasons. First, since the friendship questionnaire was an original instrument its reliability and validity were unknown; secondly, the friendship variables were considered outcome rather than predictor variables of loneliness.

## CHAPTER FOUR

### RESULTS

This chapter presents the results that address the research questions stated in Chapter Two. These results are presented in three sections: descriptive analyses, regression analysis and discussion of the research questions.

#### Descriptive Analyses

An important aspect of this study was to determine the extent of loneliness reported by this sample of adolescents. The Revised U.C.L.A. Loneliness Scale (Russell, Peplau & Cutrona, 1980) was used to measure the degree of loneliness experienced by each subject. The lowest possible score on this scale is 20, the highest, 80. In this study's sample the total scores ranged from 21 to 67, with a mean of 38.34 and standard deviation of 10.49. The 25th percentile of the distribution was 30; the 50th percentile was 36; the 75th percentile was 44. For a profile of the samples average response to each item of the loneliness scale;



see Appendix G.

### **Background Variables**

The background variables in this study were: gender, language, number of parents, fathers' occupational prestige, mothers' occupational prestige and age. T-tests were conducted to compare the mean loneliness scores for various subsamples.

Table 4.1 presents mean scores and T-tests of significant differences for gender, language and number of parents. There was virtually no difference in reported mean loneliness between the male and female subjects. A T-test measure was performed to test for significant differences in loneliness scores between subjects who spoke English most frequently at home, and those who spoke a language other than English most frequently at home. As Table 4.1 indicates, the difference in mean loneliness scores for these two categories of loneliness is substantial. However, the differences were not statistically significant because of the small number of subjects who spoke a language other than English most frequently at home ( $n=12$ ).

The number of parents at home was collapsed into

two categories: those adolescents living in two parent households, and those living in single parent households. A t-test performed between these two subsamples proved to be significant, indicating that adolescents living in single parent households experience significantly more loneliness than their peers living in two parent households.

Table 4.1

## T - Test

Mean Loneliness Score, Standard Deviation, T-Value and Difference Expressed as a Fraction of the Pooled Standard Deviation for Gender, Language and Number of Parents

Variable	N	Loneliness Mean	Standard Deviation	T Value	Difference Expressed as a Fraction of the Pooled Standard Deviation
Gender					
male	65	38.12	11.12	0.13	.02
female	100	38.33	10.03		
Language					
English	151	38.02	10.63	1.17	.35
other	12	41.71	8.16		
Number of Parents					
two	114	37.56	10.11	1.43*	.24
one	52	40.06	11.19		

\*  $p < .05$

The background variable, age, was reported as an interval scale. The age of subjects taking part in this study ranged from 177.0 months (14.8 years) to 222.0 months (18.5 years). The mean age was 192.0 months (16 years) with a standard deviation of 6.24 months. No significant relationship was found between age and loneliness ( $r = .0034$ ,  $p = .483$ ).

Mothers' and fathers' occupational prestige were reported on an ordinal scale. To gather data for this variable, subjects were asked to choose one of 15 categories that best described each of their parents' occupations. Each category described in the question was assigned an occupational prestige score. As explained in Chapter Three, this score was calculated by averaging the prestige values of all occupations of the Blishen scale (1987) within each category.

The mean occupational prestige score for mothers was 35.40 with a standard deviation of 12.79. The occupation prestige score for fathers was found to have a mean of 41.65 with a standard deviation of 9.70. No significant relationship was found between either parents' occupational prestige and loneliness (mother  $r = -.097$ ; father  $r = -.088$ ). For more details on occupational categories for mother and father, the

average prestige score, and average loneliness score for each occupational category see Appendix I.

The Correlation Coefficients of the six background variables with loneliness are presented in Appendix H. Negative relationships were found between loneliness and number of parents, mothers' occupational prestige and fathers' occupational prestige. Of these three relationships only number of parents was significant. The remaining background variables of age, gender and language were found to have positive relationships to loneliness, but none of these three relationships were significant at the .05 level.

### **Self Concept**

As explained in Chapter Three, a modified version of the S.D.Q. III was used in this study to measure 12 dimensions of self concept. The process of evaluating the self concept scores included adjusting reverse polarity questions dividing items into their appropriate sub-scales, and totalling sub-scale scores. The two subscales that contained 8 rather than 6 items were adjusted as described previously to allow for a common comparison among the subscales.

The highest means were reported for the self concept variables of physical ability, relations with same sex peers, general, verbal, relations with parents, and honesty. The six lowest reported means were for the variables of relations with opposite sex, problem solving, math, academic, emotional stability and physical appearance. In Table 4.2 (following page) the mean score, standard deviation and correlation coefficient of each self concept variable with loneliness is presented.

All the self concept variables had a negative relationship with loneliness, eight of which were statistically significant. Of the eight significant correlations, relations with same sex peers self concept proved to have the strongest relationship with loneliness followed by general self concept, relations with opposite sex peers self concept, emotional stability self concept, physical appearance self concept, physical ability self concept, verbal self concept, and relations with parents' self concept. The four remaining self concept variables of math, honesty, academic and problem solving did not have a significant relationship with loneliness.

Table 4.2

**Means and Standard Deviations of the Twelve Self Concept Variables  
and their Correlations with Loneliness**

Self Concept Variable	Male	Mean Female	Total	Standard Deviation for Mean Total	Correlation with Loneliness
Physical Appearance	30.66	27.60	28.74	5.95	-.433**
Emotional Stability	30.24	28.09	28.89	7.40	-.463**
Academic	29.83	28.86	29.24	8.72	-.071
Math	31.72	28.38	29.59	11.17	-.050
Problem Solving	32.59	30.27	31.13	5.39	-.070
Relations with Opposite Sex Peers	32.49	31.41	31.80	9.33	-.553**
Honesty <sup>*</sup>	31.69	32.72	32.28	4.89	-.096
Relations with Parents	32.65	32.00	32.35	8.82	-.134*
Verbal	34.30	32.62	33.28	7.21	-.228**
General <sup>*</sup>	39.00	32.91	35.29	8.55	-.617**
Relations with Same Sex Peers	36.12	35.43	36.62	5.95	-.627**
Physical Ability	39.60	35.76	37.18	9.65	-.345**

<sup>\*</sup> These subscales included 8 items each. Their means and standard deviations were adjusted to allow comparison of all 12 variables.

\*p < .05

\*\*p < .01

## Friendship Findings

The data concerning aspects of friendship were gathered by the sociogram questionnaire. These data consist of two components: friendships within the surveyed classroom and average closeness of these friendships.

As described in Chapter Three, data for the variable of friendships within the classroom was gathered by having the subjects list their friends within the surveyed class. Later during the analysis of data, the names were checked from a record of classroom students to ensure the names were those of classmates. Those names not on the master class list were considered as out of classroom friendships and excluded from the data analysis. The study results reported a mean score for friendships within the surveyed classroom of 4.51 friendships with a standard deviation of 2.57.

The second friendship variable analyzed was the mean closeness rating of the listed friendships. As outlined in Chapter Three, data for this variable was determined by the subject's closeness ratings of their classroom friendships. Subjects were asked to rate the closeness on the following 4 point scale including: not close (1), casual acquaintance (2), close (3), and very

close (4).

The reported mean closeness of friendships was 2.23 with a standard deviation of .73. These findings indicate that casual to close friendships with classroom peers was most common among this sample. As Table 4.3 displays, both friendship variables had statistically significant ( $p < .05$ ) negative relationships with loneliness. The relationships between the two friendship variables and loneliness were relatively weak. Both variables were approximately  $r = -.20$ .

Table 4.3

Mean Scores and Standard Deviations of Friendship Variables and Correlation Coefficients of Each Variable with Loneliness.

Variable	N	Mean	Standard Deviation	Correlation Coefficients
Friends in Class	166	4.50	2.60	-.193**
Mean Closeness	166	2.23	.73	-.210**

Note: \*\*  $p < .01$



### **Regression Analysis**

Before beginning the regresssion of loneliness scores a preliminary step of factor analyzing the 12 self concept variables was performed. A principal components factor analysis with varimax rotation was employed, which produced four orthogonal factors (the critical eigenvalue was 1.0). The variable breakdown and eigenvalue for each factor are presented in Table 4.4. Factor 1 was relabelled "social" self concept. Significant contributors to this factor score were general self concept which is a measure of self esteem, relations with same sex peers self concept, emotional stability self concept, physical appearance self concept, relations with opposite sex peers self concept and physical ability self concept. These variables would suggest that concept of self and self in relation to others was the theme of this factor score.

Factor 2 was relabelled "verbal" self concept. Significant contributors to this factor score were verbal self concept and problem solving self concept. These variables would suggest that verbal skills and reasoning ability were themes of this factor (Marsh, 1987).

Factor 3 was relabelled "honesty" self concept.

The significant contributors of this factor are honesty self concept and relationship with parents self concept. These variables would suggest that being reliable and trustworthy and having positive relationships with parents were themes of this factor (Marsh, 1987).

Factor 4 was relabelled "academic" self concept. Significant contributors to this factor were math self concept and academic self concept. These variables would suggest that mathematical reasoning ability and feelings of being a successful academic student are themes of this factor (Marsh, 1987).

Table 4.4

## Principal Components Factor Analysis

Variables	Factor 1	Factor 2	Factor 3	Factor 4
General	.789*	.251	.108	.074
Physical App.	.765*	.186	-.037	-.090
Opposite Sex	.683*	.017	-.167	-.323
Same Sex	.637*	-.062	.052	.294
Physical Ability	.636*	-.333	-.026	.325
Emotion	.599*	.112	.398	-.044
Verbal	.142	.811*	.139	.028
Problem Solving	.069	.759*	-.047	.318
Parent	.062	.045	.812*	.073
Math	.058	.190	.085	.879*
Academic	-.042	.483	.384	.624*
Honesty	-.017	0.548	.814*	.123
Eigenvalue	3.24365	2.35162	1.29231	1.01912
Percent of Variance	27.0	19.6	10.8	8.5
Cum. Percent	27.0	46.6	57.4	65.9

**Note:** Significant Factor Loading \*sf>.55

The regression analysis of loneliness scores involved fitting the data to four separate regression models using ordinary least squares. The first step in the analysis was to standardize the outcome variable to have a mean of zero and a standard deviation of 1.0. Each of the self-concept variables were also standardized. The remaining predictor variables were centred around their sample means, but not standardized. This scaling facilitates interpretation because the intercept for the regression equation is then zero, representing the expected score for a student who is average in every way, and the unstandardized regression weights represent effect sizes, expressed as fractions of a standard deviation on the outcome variable. For example, an estimate of the regression coefficient for "Age" of -0.01 would suggest that for each month a student is older than the sample average, his or her loneliness score is 0.01 of a standard deviation lower.

Four different regression models were run, each using a different combination of predictor variables. Model 1 was a regression run involving only the background variables. As Table 4.5 indicates none of these variables were significant at the .05 level. All of the background variables were negative predictors with the exception of language. The model 1 regression

accounts for only 4.4 percent of the variance.

The regression outlined in Model 2 involved the background variables and the 12 original self concept variables as predictors. As indicated in Table 4.5 the variables gender, relations with same sex peers, relations with opposite sex peers, and general self concept were all significant at the .05 level. All 4 of these significant variables were negative predictors of loneliness. This regression model accounted for 67.5 percent of the variance.

The predictor variables in Model 3 were the five background variables and the four factor scores of social self concept, verbal self concept, honesty self concept and academic self concept. The only significant predictor variables in this regression were number of parents ( $p < .05$ ), gender ( $p < .01$ ) and social self concept ( $p < .01$ ). These three variables had negative relationships with loneliness. As indicated in Table 4.5 this regression model accounted for 60.6 percent of the variance.

The fourth model includes only those variables that were significant predictors of loneliness in model 3. Fifty seven point four (57.4) percent of the variance was accounted for in model 4.

Table 4.5

Parameter Estimates and Standard Errors for Four Regression Models  
of Loneliness

Independent Variables	Model 1		Model 2		Model 3		Model 4	
	b	S.E.	b	S.E.	b	S.E.	b	S.E.
Constant	.000	.078	.000	.048	.000	.051	.000	.051
Age	-.007	.015	-.014	.010	-.011	.010		
Gender	-.031	.190	-.375*	.132	-.460**	.132	-.423**	.129
Language Number	.269	.356	.321	.232	.286	.242		
Parents	-.319	.190	-.166	.121	-.248*	.124	-.270*	.120
Mom Occup.								
Prest.	-.008	.010	.001	.006	-.000	.007		
Dad Occup.								
Prest.	-.008	.007	-.001	.004	-.006	.005		
Math			-.002	.081				
General			-.309**	.092				
Honesty			-.012	.070				
Opposite Sex			-.325**	.076				
Verbal			-.090	.076				
Parent			-.056	.067				
Academic			-.000	.090				
Emotion			-.109	.072				
Problem Solving			.011	.072				
Physical Appear.			.024	.081				
Same Sex			-.325**	.071				
Physical Ability			-.043	.072				
Factor 1 (Social S.C.)					-.768**	.062	-.770**	.063
Factor 2 (Verbal S.C.)					-.120	.063		
Factor 3 (Honesty S.C.)					-.103	.061		
Factor 4 (Academic S.C.)					-.028	.063		
R <sup>2</sup>	.044		.676		.606		.574	
S.E.	1.000		.618		.655		.661	
Significant F	.513		.000		.000		.000	

**Note:** Significant T value \*p<.05 \*\*p<.01

In model 4 the parameter estimate for number of parents was  $-.270$  ( $p < .05$ ). This finding indicates that subjects living in two parent families scored 27 percent of a standard deviation lower on the loneliness scale than the subjects living in one parent families, after taking account of the other variables in the model.

The parameter estimate for gender was  $-.423$  ( $p < .01$ ). This indicates that females scored 42 percent of a standard deviation lower on the loneliness scale than their male peers after taking account of the other variables in the model. Males in this study, therefore, were lonelier than females, given comparable levels of self-concept and a similar family structure.

The parameter estimate for "social" self concept was  $-.770$  which was significant at the .01 level. This finding indicates that for every standard deviation increase on the social self-concept scale, subjects scored 77 percent of a standard deviation lower on the loneliness scale, ceteris paribus. The strong relationship between "social" self concept and loneliness emphasizes the significance of self concept in predicting loneliness. Subjects who had low social self concepts tended to score high on the loneliness scale, indicating greater loneliness.

The parameter estimates of model 4 are the key

findings of this study. This regression included the predictor variables of number of parents, gender and social self concept, accounting for 57.4 percent of the variance.

### **Analysis of the Research Questions**

1. To what extent is loneliness prevalent in a sample of Grade 10 adolescents?

In this sample the loneliness score totals ranged from 21 to 67, with a mean of 38.34 and standard deviation of 10.49. Eight-three percent of the adolescents had loneliness score indicating they felt "never" to "rarely" lonely while 17 percent had score indicating they feel "sometimes" to "often" lonely.

2. Which of the independent variables or combination of these variables best predict loneliness (excluding the two friendship variables)?

As table 4.5 indicates, 4 different



regression models of loneliness scores were run. The final finding of this study was model 4. Included in this regression were the prediction variables of gender, number of parents and factor 1 social self concept. The parameter estimate for number of parents was  $-.270$  ( $p < .05$ ), for gender  $-.423$  ( $p < .01$ ), and for "social" self concept  $-.770$  ( $p < .01$ ). This regression model accounts for 57.4 percent of the variance.

3. Do classroom friendships and the closeness of these friendships have a significant relationship to the degree of loneliness experienced?

Both friendship variables had statistically significant ( $p < .05$ ) negative relationships with loneliness. However, as indicated in Table 4.3, both relationships were very weak: friends in class  $r = -.193$  and mean closeness of

these friendships  $r = -.210$ .

### **Summary**

In this study the mean loneliness score was 38.34 with a standard deviation of 10.49. Of the, six background variables investigated for their correlation with loneliness, only number of parents was found to be significant. Language was found to have a strong trend towards a negative correlation with loneliness, though not statistically significant.

Eight of the twelve self concept variables had significant negative correlations with loneliness. These were relations with same sex peers, general self concept, relations with opposite sex peers, emotional stability, physical appearance, physical ability, verbal, and relations with parent. Both variables of friendships were found to have weak negative correlations with loneliness ( $p < .05$ ).

The regression analysis of loneliness scores involved an examination of four separate models, each involving a different combination of predictor variables. The predictor variables involved in the regression analysis were the six background variables, the original 12 self concept variables, plus four factor

scores of self concept which were a result of a factor analysis of the original self concept variables. The key finding of this study was regression model four. This model was loaded with the predictor variables of number of parents ( $p < .05$ ), gender ( $p < .01$ ) and factor 1 "social" self concept ( $p < .01$ ), accounting for 57.4 percent of the variance.

## Chapter Five

### DISCUSSION

In Chapter Five a summary and discussion of the result of the study will be presented. Limitations of the study, implications of the results, and considerations for further research will also be included.

### Summary

The purpose of this study was to examine the experience of loneliness and identify factors that were correlated with the degree of loneliness adolescents experience. Loneliness was investigated by exploring its relationship to dimensions of self concept, friendship and background variables.

An anonymous survey design was employed to collect data. Included in the survey was a loneliness scale, a multi-dimensional self concept measure, a friendship measure, and a subject information sheet. The mean age of subjects was 16 years. The 166 volunteer subjects were Grade 10 students enrolled at secondary schools in

Surrey School District.

There were three research questions explored in this study. One, to what extent will loneliness be prevalent in the sample? Two, which of the independent variables or combination of these variables best predict loneliness(excluding the two friendship variables)? Three, do the variables of classroom friendships and the closeness of these friendships have a significant relationship to the degree of loneliness experienced?

The analysis of data involved two major components. A preliminary analysis investigated all variables to derive the descriptive analysis. The second component involved a factor analysis of the 12 original self concept variables and regression of loneliness involving four different combinations of predictor variables.

### **Discussion of Results**

There were five major findings of this study. First, 17 percent of the subjects had loneliness scores that indicated they felt "sometimes" to "often" lonely. Second, negative social self concept was a significant predictor of loneliness while negative academic self concept was not. Third, male and female subjects scored

virtually the same on loneliness, however when self concept scores were controlled, males were on average lonelier than females, given a similar family structure. Four, subjects living in single parent households were significantly lonelier than their peers living in two parent households. Five, subjects for whom English was a second language were lonelier than their peers for whom English was a first language, though not significantly lonelier.

Past research has indicated that loneliness is a widespread experience during adolescence (Brennan, 1982; Brennand & Auslander, 1979; Rubenstein & Shaver, 1982). This finding was generally not supported by the results of this study. A positively skewed distribution of loneliness was found with a mean score of 38.34 and standard deviation of 10.49. Approximately 17 percent of the subjects had scores that indicated they feel "sometimes" to "often" lonely. The remaining 83 percent of the subjects had total loneliness scores that indicated they feel "never" to "rarely" lonely. Because the results of this study indicate that only 17 percent of the subjects reported feeling lonely, they do not indicate loneliness is widespread. However the results do identify loneliness as a problem which needs to be

addressed for a substantial amount of the adolescent population.

The results of the regression analysis of loneliness scores found several of the predictor variables to be significant. The final regression equation (model 4) was loaded with the predictor variables of social self concept ( $b = -.770$ ) gender ( $b = -.423$ ) and number of parents ( $b = -.270$ ). These variables accounted for 57.4 percent of the variance.

The parameter estimate of social self concept indicates this variable had the strongest relationship with loneliness in combination with the 2 other variables in the equation. An adolescent with a low social self concept is more likely to experience heightened feelings of loneliness. The factor social self concept created in this study was the result of a factor analysis of the original 12 variables on the self concept measure. Significant contributors to this factor score were general self concept which is a measure of self esteem, relations with same sex peers self concept, emotional stability self concept, physical appearance self concept, relations with opposite sex peers self concept and physical ability self concept. These variables would suggest that concept of self, and

self in relation to others was the theme of this factor score. This finding indicating the significance of self perception in relationship to loneliness tends to support the cognitive theory of loneliness (Perlman & Peplau, 1982; Peplau, Miceli & Morasch, 1982).

Cognitive theory centres on the influence of "subjective perceptions and standards "(Peplau, Miceli \* Morasch, 1982, p. 137). Cognitive theorists believe that "low self esteem is often embedded in an interrelated set of self-defeating cognitions and behaviours that impair social competence and so put people at risk for loneliness" (Peplau, Miceli & Morasch, 1982, p. 145).

Hojat (1987) in his discussion of attachment theory also identifies self concept as important to understanding loneliness. In terms of attachment theory, low self esteem associated with chronic loneliness is believed to be the result of a negative self concept influenced by past attachment experiences (Shaver & Hazan, 1987). Cognitive techniques which encourage reconstruction of the client's "self image in relation to others" is cited by Hojat (1987) as an important secondary component of intervention for loneliness (p. 98).

The significance of social self concept would also



lend support to the importance of peer relationships during adolescence. Brennan (1982) and Kegan (1983) both view adolescence as a period when peer relationships are highlighted. Developmentally adolescents are shifting from a role orientation with peers to a focus of interpersonal relationships (Kegan, 1983). Interpersonal relationships generate greater awareness of self and understanding of others (Kegan, 1983). Brennan (1982) perceives adolescence as a period when self concept is particularly vulnerable because of the emotional and physical transitions occurring. The findings of the final loneliness regression model 4, generally support these views. Adolescents who have a low or negative concept of self in relation to peers and significant others will experience significantly greater loneliness than their peers who have more positive concepts. Goswick and Jones (1982) identified six predictors of loneliness during in adolescence. Negative predictors were social facility, social acceptance and social integration. Positive predictors were alienation, inferiority feelings and negative school attitudes. Once again the themes of self esteem and social relationships are highlighted.

Of almost equal interest to these significant

findings are the results identifying variables not significantly related to loneliness. These self concept variables were honesty (indicating the subject's belief that they are an honest, trustworthy person), math, academic, and problem solving. This would suggest there is no significant correlation between variables of self concept related to academic work and loneliness. Further to this finding after the factor analysis of the preliminary self concept variables, "academic" self concept which was loaded primarily with the math and academic self concept (factor 4) variables was not a significant predictor variable in the regression of loneliness.

The second strongest variable in this study's final regression equation was gender. The parameter estimate of this variable suggests that, in this sample, males reported greater loneliness than their female peers when controlled for self concept. Previously Russell, Peplau and Cutrona (1982) found no significant differences between the genders in reported loneliness among young adults. Wood and Hannell (1977) also found no gender differences in a study of loneliness in adolescence. However multi-dimensional measure of self concept were not factors in these studies, though Wood & Hannell

(1977) did include a measure of self esteem. Therefore, the finding that males are lonelier than females when controlled for self concept is additional information rather than contradictory.

In a review of 39 current studies, Borys and Perlman (1985) found the method of loneliness measurement to have an effect on reported gender differences in loneliness. There was a tendency for males to report greater loneliness than females on written measures with indirect questions not requiring participants to self label themselves as lonely. In contrast to this, studies using interviews requiring self labelling of loneliness as a means of data collection were more likely to find females reporting greater loneliness than males. Borys and Perlman (1985) suggest that social influence is a significant contributor to these gender differences in disclosure of loneliness feelings.

The revised U.C.L.A. Loneliness Scale (Russell, Peplau & Curona, 1980) used in this study was identified by Borys and Perlman (1985) as an instrument likely to show results of males indicating greater loneliness than females. In this study the results indicated that males were on average lonelier than females given comparable

levels of self concept and family structure. Therefore based on the previous conclusions of Borys and Perlman (1985), the identified gender differences in loneliness was in the expected direction.

Another key finding of this study is that adolescents living in single parent households reported significantly greater loneliness than their peers living in two parent households. This finding was in the direction expected as we can assume those adolescents who live in households with only one parent may feel a level of disconnectedness with the absent parent. In a previous study Brennan and Auslander (1979) found no differences in the influence of number of parents in loneliness. However these researchers cautioned readers as they felt this was a contradiction to expected findings (Brennan, 1982).

There does not appear to be an obvious reason for the contradictory findings to the Brennan and Auslander study (1979) in regards to number of parents and loneliness. Perhaps subtle cultural differences in family expectations and roles between the American study (Brennan & Auslander, 1979) and this Canadian study are a viable explanation. The importance of the adolescents relationship with parents was clearly established in

this study. The self concept variable of relations with parents was identified as having a negative significant relationship to loneliness. Therefore the significance of the number of parents in the adolescents household in relation to loneliness experienced is a consistent theme in this sample.

A strong trend identified in this study was the relationship between language and loneliness. Though not statistically significant, there was a trend for those subjects for whom English was a second language to report a heightened level of loneliness. Because of the small number of subjects in this category ( $n=12$ ), the higher scores were not found to be statistically significant. However, it should be noted that English as a second language adolescents will likely experience heightened feelings of loneliness. These adolescents may be more subject to loneliness as they experience emotional adjustments to an unfamiliar and different social culture. We might expect transitory loneliness to be more common among English as a second language adolescents experiencing this transition.

The number of friendships each subject had in the surveyed class and the closeness of these friendships were found to have weak, negative correlations with

loneliness. These relationships are in the expected direction, as we can assume those adolescents without even casual friendships in class would experience greater loneliness than those with friendships. Examining only one class, that is the class in which the survey was administered, as a sample of the subjects' social connection to peers could be expected to be a limited example. Close friendships providing emotional connectedness to others can exist in many other aspects of the adolescents life, which may have shown a stronger negative relationship to loneliness if examined.

### **Limitations**

Four factors limit the findings of this study: the use of self-reporting measures, voluntary subjects, inclusion of only regular program students in the sample, and the use of a sociogram questionnaire without proven reliability or validity.

This study was conducted as a survey with self reported measures which are open to misinterpretation and depend on honesty of response. It is expected that the results may be biased in the subjects unwillingness to disclose loneliness or negative feelings about

themselves. The internal validity can be weakened by social desirability.

The second limitation concerns the potential bias of a sample of voluntary subjects. The sample may be biased in that students who felt lonely or disconnected from their classmates would not volunteer to take part. Because of the design of this study, the students were surveyed in class units. Therefore the total number of students enrolled in each of the nine classes surveyed represented the total number of possible participants. However, because participation was voluntary, different levels of participation emerged. An average of 99 percent of possible participants in the low and medium SES area schools volunteered to take part. In the high SES area school only 55 percent of possible participants volunteered. A possible explanation for the differences in participation is the influence of teacher enthusiasm about the study. The low and medium SES area schools were represented by two teachers who appeared to be genuinely enthusiastic about the study, spending time encouraging students to participate. We can assume by the high percentage of participants in these two schools, that the enthusiasm of the teachers had a positive influence on student participation. The teacher who represented the high SES area school appeared

considerably less enthusiastic about the study, which we can assume by the low number of participants, negatively influenced student participation. This type of influence could weaken the external validity of the study because one could expect that, on the average, volunteers would be less lonely than those who declined to participate.

The third limitation also concerns the potential bias of the sample in that the subjects represented the regular classroom population only. This study did not specifically include a special needs class, therefore only those special needs students integrated into regular classes were included. Special needs students were basically unrepresented. This limitation in external validity must be considered when generalizing the study results.

The fourth limitation deals with the Sociogram Questionnaire which measured the friendship findings. Because this is an original instrument constructed only for this study, the construct validity and reliability are unproven. Data gathered from this questionnaire enhanced the study findings but inferences and conclusions drawn from this measure should be considered with caution.



### Implications for Teachers and Counsellors

The research for this study was conducted in a public school system of British Columbia. Therefore, each of the five major findings of this study have implications for teachers and counselors working with potentially lonely adolescents within the school system.

First, 17 percent of the sample reported feeling "sometimes" to "often" lonely. In the context of a classroom setting, in a class of 30 students, it is likely that approximately 5 of the 30 students would probably be experiencing some degree of loneliness. Previous research has identified drug and alcohol abuse, delinquent behaviour, dropping out of school, and suicide as behaviours related to loneliness during adolescence (Bronfenbrenner, 1986; France, McDowell and Knowles, 1984). These findings would imply that there is a need for teachers to be aware of the extent and dimensions of loneliness during adolescence.

The second major finding was that negative social self concept as a significant indicator of loneliness while negative academic self concept was not. In relation to self concept the social aspects of school

are stronger indicators of loneliness than academic aspects. Creating classroom atmospheres which encourage social inclusion and interaction with peers would likely help to alleviate feelings of loneliness. In turn, those adolescents who appear to be socially isolated and emotionally disconnected from peers and significant others are likely to be experiencing loneliness.

The third major finding was male and female subjects scored virtually equal in loneliness scores. However, females scored lower in self concept. Therefore, when self concept scores were controlled, males were lonelier than females. This finding implies that adolescent males are more likely than females to experience heightened loneliness when self concept factors and home structure are equal. This would further imply there are gender differences in loneliness among adolescents.

The fourth major finding was that adolescents living in single parent households were significantly lonelier than their peers living in two parent households. This finding implies that situational factors such as number of parents in the adolescents household are reliable indicators of increased risk for loneliness in adolescents.

The fifth major finding was the strong trend for adolescents for whom English is a second language to score considerably greater in loneliness than peers for whom English is a first language. It could be assumed from this finding that these adolescents find social inclusion and emotional connectedness with peers more difficult. Therefore, as with social self concept, atmospheres that encourage social inclusion and positive interaction with peers would be crucial in alleviating loneliness among English as a second language adolescents.

#### **Recommendations for Further Research**

Recommendations for further research include possible modification of this current study and areas for further research associated to the study results.

Suggestions to modify this study's design focus on the self concept and friendship measures. The original Self Description Questionnaire III (Marsh, 1984) is considerably longer in items than the modified version used in this study. In future research it may be beneficial to employ the original full length instrument in order to extract greater detail of the subjects' self

concept. In regards to the sociogram questionnaire this original instrument could be improved upon by reworking the component of number of contacts with friends.

Because this was an open ended response question there were a large number of extreme scores, which greatly skewed the distribution. For future research it would be beneficial to provide subjects with a representative range to respond to rather than leaving the response open ended. If this aspect of relationships with others could be reliably measured it may further enhance our understanding of loneliness.

In reference to areas of new research associated to this study, expanding on the influence of social self concept could be a focus. Of particular interest would be a study investigating the effectiveness of intervention techniques aimed at encouraging positive self esteem and social self concept. Because of the results of this study indicating the strong negative relationship between social self concept and adolescent loneliness it would seem logical that interventions aimed to improve these constructs in lonely adolescents would be appropriate. However, a "true" experiment (Cook & Campbell, 1979) employing strategies of intervention would be necessary to establish their

effectiveness.

Future research involving special needs students would also be of interest. The role loneliness plays in the lives of adolescents who are segregated from peers because of physical, psychological or emotional differences needs to be examined. This type of data would be an important consideration for schools developing policies towards student integration versus segregation issues. As the study results indicate in relation to self concept, social aspects of school are more important than academic aspects. The emotional impact of segregation according to academic ability is likely to have a negative influence on self concept.

Another interesting approach for future research on loneliness would be a study that distinguishes between different types of loneliness. There are distinctions between transitory and chronic loneliness, and therefore differences in intervention strategies. By identifying the type of loneliness, interventions specific to each type could be employed accordingly to establish their effectiveness.

### **Conclusion**

Based on the results of this study social self concept, gender, number of parents and ethnicity are variables related to loneliness. The results suggest that these factors are important considerations for counsellors working with lonely adolescents. Future research further clarifying the relationship between loneliness and these variables, and their importance in regards to intervention strategies, would be beneficial.

## REFERENCES

- Ainsworth, M.D.S., Blehar, M.C., Waters, E. & Wall, S. (1978).  
Patterns of attachment. Hillsdale, N.J.: Erlbaum.
- Anderson, C.A. & Arnoult, L.H. (1985a). Attribution models of depression, loneliness and shyness. In J. Harvey & G. Weary (Eds.), Attribution: Basic issues and applications (pp. 235-279). Orlando: Academic Press.
- Anderson, C.A. & Arnoult, L.M. (1985b). Attributional style and everyday problems in living: Depression, loneliness and shyness. Social Cognition, 1, 16-35.
- Asher, S.R., Hymel, A. & Renshaw, P.D. (1984). Loneliness in children. Childhood Development, 55, 1456-1464.
- Asher, S.R. & Wheeler, V.A. (1985). Children's loneliness: A comparison of rejected and neglected peer status. Journal of Consulting and Clinical Psychology, 53 (4), 500-505.
- Berg, J. H. & Peplau, L. A. (1982). Loneliness: The relationship of self disclosure and adrogyny. Personality and Social Psychology, 8 (4), 624-630.
- Blishen, B.R. Carroll, W.K. & Moore, C. (1987). The 1981 socio-economic index for occupations in Canada. Canadian Review of Sociology and Anthropology, 24, (4), 465-488.
- Borys, S. & Perlman, D. (1985). Gender differences in loneliness. Personality and Social Psychology Bulletin, 2 (1), 63-74.
- Bowlby, J. (1969). Attachment and loss, Vol. I. Attachment. New York: Basic Books.

- Bowlby, J. (1973). Attachment and loss, Vol. II. Separation: Anxiety and anger. New York: Basic Books.
- Bowlby, J. (1980). Attachment and loss, Vol. III. Loss: Sadness and depression. New York: Basic Books.
- Brennan, T. (1982). Loneliness at adolescence. In L. A. Peplau & D. Perlman (Eds.). Loneliness: A source book of current theory, research and therapy (pp. 269 - 290). New York: John Wiley and Son.
- Brennan, T. & Auslander, N. (1979). Adolescent loneliness: An exploratory study of social and psychological pre-dispositions and theory (Vol. I). Prepared for the National Institute of Mental Health, Juvenile Problems Division (Grant No. ROI-MH 289 12-01). Boulder, Colorado: Behavioral Research Institute.
- Bronfenbrenner, U. (1986). Alienation and the four worlds of childhood. Phi Delta Kappan, 67, 430-436.
- Charlton, J. (1987). Self concept and locus of control: A study of intermediate and secondary students with learning disabilities. Unpublished Master's thesis, University of British Columbia. Vancouver, B.C.
- Chatterjee, S. & Price, B. (1977). Regression analysis by example. New York: John Wiley & Son.
- Cook, & Campbell, D.T. (1979). Quasi-Experimentation. New York: Rand McNally.
- Czikszentmihalyi, M. & Larson, R. (1984). Being adolescent: Conflict and growth in the teenage years. New York: Basic Books.



- France, M.H., McDowell, C. & Knowles, D. (1984). Understanding and coping with loneliness. School Counselor, 11, 11-17.
- Frankl, V.E. (1963). Man's search for meaning. New York: Washington Square Press.
- Franzoi, S. & Davis, M. (1985). Adolescent self disclosure and loneliness: Private self consciousness and parental influences. Journal of Personality and Social Psychology, 48, 768-780.
- Fitts, W.H. (1965). Tennessee Self Concept Scale. Nashville, Tennessee: Counselor Recordings and Tests.
- Fromm-Reichman, F. (1959). Loneliness. Psychiatry, 22, 1-15.
- Gergen, K.J. & Gergen, M.M. (1981). Social psychology. New York: Harcourt Brace Jovanich, Inc.
- Gergen, K.J. & Gergen, M.M. (1986). Social psychology (2nd ed.). New York: Springer Verlag Inc.
- Gerson, A.C. & Perlman, D. (1979). Loneliness and expressive communication. Journal of Abnormal Psychology, 88, 258-261.
- Goswick, R.A. & Jones, W.H. (1981). Loneliness, self concept and adjustment. Journal of Psychology, 107, 237-240.
- Goswick, R.A. & Jones, W.H. (1982). Components of loneliness during adolescence. Journal of Youth and Adolescence, 11, (5), 373-383.
- Hojat, M. (1982). Loneliness as a function of parent-child and peer relations. Journal of Psychology, 112, 129-133.

- Hojat, M. (1987). A psychodynamic view of loneliness. In M. Hojat & R. Crandall (Eds.), Loneliness: Theory, research and applications. [Special issue]. Journal of Social Behavior and Personality, 2, (2, part 2), 89-104.
- Horowitz, L.M. & French, R. (1979). Interpersonal problems of people who describe themselves as lonely. Journal of Consulting and Clinical Psychology, 47, (4), 762-764.
- Horowitz, L.M., French, R. & Anderson, C. (1982). The prototype of a lonely person. In L.A. Peplau & D. Perlman, (Eds.) Loneliness: A sourcebook of current theory, research and therapy (pp.183-205). New York: John Wiley and Son.
- Kegan, R. (1982). The evolving self: Problem and process in human development. Cambridge, MA: Harvard University Press.
- Lai, C. (1986). UBC SPSSX: Statistical package for the social sciences extended version release 2.0 (under MTS). Vancouver: University of British Columbia.
- Marsh, H.W. (1987). The self description questionnaire (SDQ) III: A theoretical and emperical basis for the measurement of multiple dimensions of late adolescent self concept: An interm test manual and a research monograph. Preliminary draft submitted for publication.
- Marsh, M. & O'Neill, R. (1984). Self description questionnaire III: The construct validity of multi-dimensional self-concept ratings by late adolescents. Journal of Educational Measurement, 21, (2), 153-164.

- Middleton-Moz, J. & Dwinell, L. (1986). After the tears: Reclaiming the personal losses of childhood. Pompano Beach, Florida: Health Communications, Inc.
- Nelson, L.R. (1974). Guide to LERTAP use and interpretation. Dunedin, New Zealand: University of Otago.
- Peplau, L.A. & Caldwell, M.A. (1978). Loneliness: A cognitive analysis. Essence, 2, (4), 207-220.
- Peplau, L.A., Miceli, M. & Morasch, B. (1982). Loneliness and self-evaluation. In L.A. Peplau & D. Perlman (Eds.), Loneliness: A source book of current theory, research and therapy (pp. 135-151). New York: John Wiley and Son.
- Peplau, L.A. & Perlman, D. (1979). Blueprint for social psychological theory of loneliness. In M. Cook & G. Wilson (Eds.) Love and attraction. Oxford, England: Pergamon Press.
- Perlman, D. & Joshi, P. (1987). Revelation of loneliness. In M. Hojat & R. Crandall (Eds.), Loneliness: Theory, research and applications [Special Edition]. Journal of social Behavior and Personality, 2, (2, part 2), 63-76.
- Perlman, D. & Peplau, L.A. (1982). Theoretical approaches to loneliness. In L.A. Peplau & D. Perlman (Eds.), Loneliness: A sourcebook of current theory, research and therapy (pp. 123-134). New York: John Wiley and Son.
- Rappaport, L. (1972). Personality development: The chronology of experience. Illinois: Scott, Foresman.
- Rook, K.S. (1984). Promoting social bonding: Strategies for helping the lonely and socially

- isolated. American Psychologist, 39, 1389-1407.
- Rubenstein, C.M. & Shaver, P. (1982). The experience of loneliness. In L.A. Peplau & D. Perlman, (Eds.) Loneliness: A sourcebook of current theory, research and therapy (pp.206-223). New York: John Wiley and Son.
- Rubin, Z. (1982). Children without friends. In L.A. Peplau & D. Perlman (Eds.) Loneliness: A sourcebook of current theory, research and therapy (pp.123-134). New York: John Wiley and Son.
- Russell, D., Peplau, L.A. & Cutrona, C.E. (1980). The revised U.C.L.A. Loneliness Scale: Concurrent and discriminant validity evident. Journal of Personality and Social Psychology, 39 (3), 472-480.
- Sadler, W.A. & Johnson, T.B. (1980). From loneliness to anomia. In J. Hartog, J.R. Andry & Y.A. Cohen (Eds.). The anatomy of loneliness (pp. 34-65). New York: International Universities Press.
- Schultz, N.R. & Moore, D. (1987). Further reflections on loneliness research: Commentary on Weiss's assessment of loneliness research. In M. Hojat & R. Crandall (Eds.), Loneliness: Theory, research and applications. [Special issue]. Journal of Social Behavior and Personality, 2, (2, part 2) 37-40.
- Sears, D.O., Freedman, J.L. & Peplau, L.A. (1985). Social Psychology. Englewood Cliffs, New Jersey: Prentice Hall, Inc.
- Sharelson, R.J., Hubner, J.J. & Stanton, G.C. (1976). Validation of construct interpretations. Review of Educational Research, 46, 407-441.
- Shaver, P. & Hazan, C. (1987). Being lonely, falling in love: Perspectives from attachment theory. In M.

Hojat & R. Crandall (Eds.), Loneliness: Theory, research and applications. [Special edition]. Journal of Social Behavior and Personality, 2, (2, part 2) 105-124.

Solano, C.H. (1987). Loneliness and perceptions of control: General traits versus specific attributions. In M. Hojat & R. Crandall (Eds.), Loneliness: Theory, research and applications. [Special edition]. Journal of Social Behavior and Personality, 2, (2, part 2), 201-214.

Suedfeld, P. (1982). Aloneness as a healing experience. In L.A. Peplau & D. Perlman (Eds), Loneliness: A sourcebook of current theory, research and therapy (pp. 54-80). New York: John Wiley and Son.

Sullivan, H. S. (1953). The interpersonal theory of psychiatry. New York: W.W. Norton and Company.

Watkins, M. (1986). Invisible guests: The development of imaginal dialogues. Hillsdale, New Jersey: Analytic Press, Lawrence Erlbaum Associates Inc.

Williams, E.G. (1983), Adolescent loneliness. Adolescence, 18, (69), 51-66.

Willms, J.D. (Personal communication, December 5, 1988).

Wood, L.A. (1978). Loneliness, social identity and social structure. Essence, 2, 259-270.

Wood, L.A. & Hannel, L. (1977). Loneliness in adolescence. Unpublished manuscript. University of Guelph, Ontario, Canada.

**APPENDIX A**  
**CONSENT TO PARTICIPATE FORM**

Kathy Harward	Dr. Richard Young
Graduate Student	Dept. of Counselling Psychology
(Master of Arts)	
University of B.C.	University of British Columbia

Dear Parent/Guardian:

**Re: Survey Study of "Adolescent Loneliness"**

This letter is a request for permission to allow your son/daughter to take part in a social sciences research study on adolescent loneliness, at secondary schools in Surrey.

This study of adolescent loneliness is being conducted by Dr. Richard Young and Kathy Harward, graduate student, from the department of Counselling Psychology, University of British Columbia. We feel there is a need for researchers, counsellors, and teachers to better understand adolescents' perception and experience of loneliness. Taking part in this study will also assist the adolescents to better understand themselves and their feelings of loneliness.

The study consists of completing four questionnaires which will require one hour of your son's/daughter's classroom time. After completion of the questionnaires, time will also be provided for your son/daughter to ask questions or to discuss the questionnaires with the researcher. The four questionnaires of the study consist primarily of a subject information sheet, a self-concept questionnaire, a loneliness questionnaire, and a classroom sociogram questionnaire which asks students to describe their classroom friendships.

This study is being conducted with approval by and permission from the University of British Columbia Ethics Committee, Surrey School District, you son's/daughter's school principal, as well as the

**APPENDIX B**  
**WRITTEN INSTRUCTIONS TO PARTICIPANTS**



Kathy Harward  
UBC Graduate Studies

DR. Richard Young  
UBC Supervisor

**Re: "Adolescent Loneliness"**

The following questionnaires are part of a survey study of adolescent loneliness. Past research has found that loneliness is more intense during adolescence and early adulthood than at any other time in our lives. There are two major purposes to this study. The first is to clarify our understanding of the experience of loneliness for adolescents, and the second is to gather information so that counsellors can provide helpful guidance for adolescents experiencing difficulties with loneliness.

There are a total of four questionnaires to be completed by each participant in the study. The first questionnaire is a subject information sheet which covers background information of all subjects taking part in the study. The second questionnaire is a self-description questionnaire to investigate your feelings about yourself and your relationships with others. The third questionnaire is a loneliness scale which surveys your feelings of aloneness and loneliness. The final questionnaire is a classroom sociogram which gathers information about your friendships with other students in your class.

It is very important that you respond to the questions and statements on all four questionnaires as conscientiously and honestly as possible. Please don't be tempted to answer according to what you think is a desired response; honesty of response is very important. The information gathered on the questionnaires is confidential.

Your names are not to be used on the questionnaires; therefore, the information is anonymous. The intention of this survey is to gather information to determine a

pattern of response, not to single out or examine any individual taking part. In total, the four questionnaires will require one hour or less to complete.

All subjects considering taking part in this study have the right to refuse to take part at any time, or refuse to answer any question on the questionnaires. Participation or non-participation in this study will have no consequence on your class standing in any way.

It will be assumed that consent to participate in the study is given upon completion of the questionnaires.

Sincerely,

**Kathy Harward**

**APPENDIX C**  
**SUBJECT INFORMATION SHEET**

The questions on this sheet are intended to provide Background information on students taking part in this survey. This information will be grouped together to work out averages. Therefore, no one person will be singled out or identified according to this information. Please answer each questions as honestly and accurately as possible.

1. Age:        Years \_\_\_\_\_ Months: \_\_\_\_\_.
2. Gender:    Male \_\_\_\_\_ Female: \_\_\_\_\_.
3. Which language do you most often speak at home  
\_\_\_\_\_.
4. Which of the following people live in the same household as your? (Mark all that apply.)

	Yes	No
Mother	_____	_____
Other female guardian (step/ foster mother)	_____	_____
Father	_____	_____
Other Male guardian (step/foster father)	_____	_____
Sister(s) (stepsister(s)/half- sister(s))	_____	_____
Brothers(s) (stepbrother(s)/ half-brother(s))	_____	_____
Grandparent(s)	_____	_____
Other adults	_____	_____

5. It would be helpful to get some information about the jobs most recently held by your mother and father (parents, guardians or step-parents with whom you live). **Please choose a category below that best describes their most recent jobs.**  
(Mark ONE for EACH parent.)

	<u>MOTHER</u>	<u>FATHER</u>
CLERICAL, such as bank teller, bookkeeper secretary, typist, mail carrier	_____	_____
CRAFTSMAN, such as automobile mechanic machinist, painter, plumber, carpenter	_____	_____
FARMER, FARM MANAGER	_____	_____
LABOURER, such as construction worker, car washer, farm labourer	_____	_____
MANAGER, ADMINISTRATOR, such as office/ restaurant/sales manager, school administrator, buyer, government official	_____	_____
MILITARY, such as career officer, listed man or woman in the Armed Forces	_____	_____
OPERATIVE, such as meat cutter, machine operator, welder, taxi/bus/truck driver	_____	_____
PROFESSIONAL, such as accountant, artist registered nurse, engineer, librarian, writer, social worker, actor/actress, athlete, politician, school teacher	_____	_____
PROFESSIONAL, such as clergyman, dentist, physician, lawyer, scientist, college teacher	_____	_____
PROPRIETOR OR OWNER, such as owner of a small business, contractor	_____	_____
PROTECTIVE SERVICE, such as detective, policy officer or guard, sheriff, fire fighter	_____	_____

	<u>MOTHER</u>	<u>FATHER</u>
SALES, such as salesperson, advertising or insurance agent, real estate broker	_____	_____
SERVICE, such as barber, beautician, practical nurse, janitor, waiter/waitress	_____	_____
TECHNICAL, such as draftsman, medical or dental technician, computer programmer	_____	_____
NEVER WORKED	_____	_____
NOT LIVING AT HOME	_____	_____
DON'T KNOW	_____	_____
OTHER (write in) _____		
_____		

**APPENDIX D**  
**SELF DESCRIPTION QUESTIONNAIRE III**

This questionnaire is made up of a number of a number of statements about the way people feel about themselves. Each represents a commonly held opinion, and there are no right or wrong answers.

Please read each statement carefully and **circle** the number of the response which is closest to how true or how false the statement is for you personally.

NOTE: Asterisk \* indicates reverse polarity.

definitely false/mostly false/mostly true/definitely true							
1	2	3	4	5	6	7	8

SAMPLE

- a I like summer holidays.  
1 2 3 4 5 6 7 8
1. I find many mathematical problems interesting and challenging.  
1 2 3 4 5 6 7 8
2. Overall, I have a lot of respect for myself.  
1 2 3 4 5 6 7 8
- \*3. I often tell small lies to avoid embarrassing situations.  
1 2 3 4 5 6 7 8
4. I get a lot of attention from members of the opposite sex.  
1 2 3 4 5 6 7 8
- \*5. I have trouble expressing myself when trying to write something.  
1 2 3 4 5 6 7 8
6. I am usually pretty calm and relaxed.  
1 2 3 4 5 6 7 8
- \*7. I hardly ever saw things the same way as my parents when I was growing up.  
1 2 3 4 5 6 7 8
8. I enjoy doing work for most academic subjects.  
1 2 3 4 5 6 7 8



		definitely false/mostly false/mostly true/definitely true							
		1	2	3	4	5	6	7	8
* 9.	I am never able to think up answers to problems that haven't already been figured out.	1	2	3	4	5	6	7	8
10.	I have a physically attractive body.	1	2	3	4	5	6	7	8
* 11.	I have few friends of the same sex who I can really count on.	1	2	3	4	5	6	7	8
12.	I am a good athlete.	1	2	3	4	5	6	7	8
13.	I have hesitated to take courses that involve mathematics.	1	2	3	4	5	6	7	8
* 14.	Overall, I <u>lack</u> self-confidence.	1	2	3	4	5	6	7	8
15.	People can always rely on me.	1	2	3	4	5	6	7	8
* 16.	I find it difficult to meet members of the opposite sex whom I like.	1	2	3	4	5	6	7	8
17.	I can write effectively.	1	2	3	4	5	6	7	8
18.	I worry a lot.	1	2	3	4	5	6	7	8
19.	I would like to bring up children of my own (if I have any) as my parents raised me.	1	2	3	4	5	6	7	8
* 20.	I hate studying for many academic subjects.	1	2	3	4	5	6	7	8
21.	I am good at combining ideas in ways that others have not tried.	1	2	3	4	5	6	7	8

		definitely false/mostly false/mostly true/definitely true							
		1	2	3	4	5	6	7	8
* 22.	I am ugly.	1	2	3	4	5	6	7	8
23.	I am comfortable talking to members of the same sex.	1	2	3	4	5	6	7	8
* 24.	I am awkward and poorly co-ordinated at most sports and physical activities.	1	2	3	4	5	6	7	8
25.	I have generally done better in mathematics courses than other courses.	1	2	3	4	5	6	7	8
26.	Overall, I am pretty accepting of myself.	1	2	3	4	5	6	7	8
* 27.	Being honest is <u>not</u> particularly important to me.	1	2	3	4	5	6	7	8
28.	I have lots of friends of the opposite sex.	1	2	3	4	5	6	7	8
29.	Relative to most people, my verbal skills are quite good.	1	2	3	4	5	6	7	8
30.	I am happy most of the time.	1	2	3	4	5	6	7	8
* 31.	I still have many unresolved conflicts with my parents.	1	2	3	4	5	6	7	8
32.	I like most academic subjects.	1	2	3	4	5	6	7	8
33.	I wish I had more imagination and originality.	1	2	3	4	5	6	7	8
34.	I have a good body build.	1	2	3	4	5	6	7	8
* 35.	I don't get along very well with other members of the same sex.	1	2	3	4	5	6	7	8



	definitely false/mostly false/mostly true/definitely true							
	1	2	3	4	5	6	7	8
	1	2	3	4	5	6	7	8
50.	Overall, I have a lot of self-confidence.							
	1	2	3	4	5	6	7	8
51.	I sometimes take things that do not belong to me.							
*	1	2	3	4	5	6	7	8
52.	I am comfortable talking to members of the opposite sex.							
	1	2	3	4	5	6	7	8
53.	I am good at expressing myself.							
	1	2	3	4	5	6	7	8
54.	I hardly ever feel depressed.							
	1	2	3	4	5	6	7	8
55.	My values are similar to those of my parents.							
	1	2	3	4	5	6	7	8
56.	I'm good at most academic subjects.							
	1	2	3	4	5	6	7	8
57.	Im not much good at problem-solving.							
*	1	2	3	4	5	6	7	8
58.	My body weight is about right (neither too fat not too skinny)							
	1	2	3	4	5	6	7	8
59.	Other members of the same sex find me boring.							
*	1	2	3	4	5	6	7	8
60.	I am poor at most sports and physical activities.							
*	1	2	3	4	5	6	7	8
61.	I have always done well in mathematics classes.							
	1	2	3	4	5	6	7	8
62.	Overall, nothing that I do is very important.							
*	1	2	3	4	5	6	7	8

	definitely false/mostly false/mostly true/definitely true							
	1	2	3	4	5	6	7	8
63.	I never cheat.							
	1	2	3	4	5	6	7	8
* 64.	I am quite shy with members of the opposite sex.							
	1	2	3	4	5	6	7	8
* 65.	In school, I had more trouble learning to read than most other students.							
	1	2	3	4	5	6	7	8
* 66.	I tend to be high-strung, tense and restless.							
	1	2	3	4	5	6	7	8
67.	I like my parents.							
	1	2	3	4	5	6	7	8
* 68.	I'm not particularly interested in most academic subjects.							
	1	2	3	4	5	6	7	8
69.	I am an imaginative person.							
	1	2	3	4	5	6	7	8
70.	I dislike the way I look.							
	1	2	3	4	5	6	7	8
71.	I share lots of activities with members of the same sex.							
	1	2	3	4	5	6	7	8
72.	I enjoy sports and physical activities.							
	1	2	3	4	5	6	7	8
* 73.	Overall, I have pretty negative feelings about myself.							
	1	2	3	4	5	6	7	8
74.	I am a very honest person.							
	1	2	3	4	5	6	7	8
* 75.	I would feel OK about cheating on a test as long as I did not get caught.							
	1	2	3	4	5	6	7	8
76.	Overall, I have pretty positive feelings about myself.							
	1	2	3	4	5	6	7	8

**APPENDIX E**  
**LONELINESS SCALE**

**Directions:** Indicate how often you feel the way described in each of the following statements. **Circle** one number for each.

	<u>Never</u>	<u>Rarely</u>	<u>Sometimes</u>	<u>Often</u>
1. I feel in tune with the people around me.	1	2	3	4
2. I lack companionship.	1	2	3	4
* 3. There is no one I can turn to.	1	2	3	4
* 4. I do not feel alone.	1	2	3	4
5. I feel part of a group of friends.	1	2	3	4
6. I have a lot in common with the people around me.	1	2	3	4
7. I am no longer close to anyone.	1	2	3	4
* 8. My interests and ideas are not shared by those around me.	1	2	3	4
* 9. I am an outgoing person.	1	2	3	4
10. There are people I feel close to.	1	2	3	4
11. I feel left out.	1	2	3	4
* 12. My social relationship are superficial.	1	2	3	4
* 13. No one really knows me well.	1	2	3	4
* 14. I feel isolated from others.	1	2	3	4
* 15. I can find companionship when I want it.	1	2	3	4

**Note:** Asterisk \* marks reverse polarity questions.

	<u>Never</u>	<u>Rarely</u>	<u>Sometimes</u>	<u>Often</u>
16. There are people who really understand me.	1	2	3	4
17. I am unhappy being so withdrawn.	1	2	3	4
* 18. People are around me but not with me.	1	2	3	4
19. There are people I can talk to.	1	2	3	4
20. There are people I can turn to.	1	2	3	4



**APPENDIX F**  
**SOCIOGRAM QUESTIONNAIRE**

In the left-hand column below, list the names of people in this class whom you feel connected to on a personal level, or whom you consider as friends. They may be people you meet with after school, friends you talk to, people you play sports with, or study with, or other similar activities. You may list any number of people you wish, up to a limit of ten. Please use only their first name and last initial on the list.

After you have listed their names in the left-hand column, then decide how close you feel to each person, using the numbers in the middle column. Based on the four-point scale, ranging from 1 (not close) to 4 (very close), circle the number beside each person's name which best describes how close you feel to that person.

Finally, in the third column, think about the number of time over the past seven days that you have spent time with each person you've listed. If you know the exact number of times, that's fine; but, if not, give an approximate number (estimate--please be as honest and accurate as possible). The time spent together would include doing activities such as those listed in the first paragraph (e.g., talking, playing sports, studying, meeting with, etc.).



**APPENDIX G**  
**LONELINESS SCALE RESPONSE PROFILE**

Loneliness Scale Statement	Number of Responses to Statement				Response Mean
	Never (1)	Rarely (2)	Sometimes (3)	Often (4)	
1. I feel in tune with the people around me.	3	10	74	78	3.41
2. I lack companionship.	39	65	42	19	2.29
3. There is no one I can turn to.	79	42	25	20	1.92
4. I do not feel alone.	26	38	44	57	2.84
5. I feel part of a group of friends.	6	15	41	103	3.49
6. I have alot in common with the people me.	5	18	60	83	3.33
7. I am no longer close to anyone.	84	38	25	18	1.90
8. My interest and ideas are not shared by those around me.	42	56	47	21	2.28
9. I am an outgoing person.	8	15	60	82	3.34
10. There are people I feel close to.	4	10	40	112	3.57
11. I feel left out.	43	57	49	17	2.24
12. My social relationship are superficial.	31	67	50	18	2.33
13. No one really knows me weil.	35	62	44	25	2.36
14. I feel isolated from others.	62	40	51	13	2.09
15. I can find companionship when I want it.	9	15	57	85	3.13
16. There are people who really understand me.	13	20	56	77	3.19
17. I am unhappy being so withdrawn.	60	40	42	22	2.24
18. People are around me but not with me.	31	64	50	21	2.37
19. There are people I can talk to.	4	10	31	121	3.62
20. There are people I can turn to.	6	9	31	120	3.60

Total Sample Mean 38.34 Standard Deviation 10.49

**APPENDIX H**  
**CORRELATION COEFFICIENTS OF BACKGROUND**  
**VARIABLES WITH LONELINESS**

Correlation Coefficients  
of Background Variables with Loneliness

	Age	Gender	Language	Mother's Occupational Prestige	Father's Occupational Prestige	Number of Parents
<b>Loneliness</b>	.0034	.0098	.0921	-.0968	-.0783	-.1482*
	(165)	(165)	(163)	(147)	(141)	(165)
	p=.483	p=.450	p=.121	p=.122	p=.178	p=.029

\* Significance  $p < .05$

**APPENDIX I**

**PROFILE OF PARENT'S OCCUPATIONAL PRESTIGE  
AND MEAN LONELINESS SCORES**



Parent's Occupational Category	N	Occupational Prestige Score	Loneliness Score	
			Mean	S.D.
<b>Father</b>				
Homemaker/Housewife	3	22.08	50.67	6.51
Labourer	17	28.82	36.41	7.19
Farm/Farm Manager	1	39.97	47.00	--
Craftsman	23	34.90	38.52	9.82
Proprietor/Owner	17	36.35	37.32	10.94
Service	1	37.27	30.00	--
Clerical	2	37.57	40.00	7.07
Operative	12	38.62	41.13	10.69
Protective Service	11	44.34	40.50	12.32
Sales	4	44.62	36.75	12.31
Technical	10	45.72	35.20	8.22
Manager/Administrator	19	50.88	32.95	9.08
Military	4	51.94	27.25	2.99
Professional (1)	12	58.18	39.00	9.15
Professional (2)	4	62.63	44.00	23.22

<b>Mother</b>				
Homemaker/Housewife	56	22.08	39.34	11.79
Labourer	2	28.82	44.00	15.56
Farm/Farm Manager	2	31.97	28.50	.71
Craftsman	0	34.90	--	--
Proprietor/Owner	5	36.35	31.60	5.27
Service	14	37.27	41.00	9.47
Clerical	23	37.57	40.44	11.49
Operative	5	38.62	35.00	6.49
Protective Service	3	44.34	38.67	12.22
Sales	5	44.62	37.80	12.32
Technical	4	45.72	26.25	2.87
Manager/Administrator	7	50.88	36.43	11.39
Military	0	51.94	--	--
Professional (1)	16	58.18	39.06	8.33
Professional (2)	3	62.23	33.67	11.02