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Abstract

Relatively little research has been conducted to examine the role of parent-child relationships in understanding loneliness during middle childhood. Twelve second to fourth grade children attending several elementary schools in a large western urban district were asked to complete the Loneliness and Social Dissatisfaction Questionnaire (LSDQ, Asher, Hymel & Renshaw, 1984) and the Parent-child Relationship Questionnaire (PCRQ, Furman & Giberson, 1995). The parents of all child participants were also invited to complete the same questionnaires. A sample of eight children, four who reported highest scores and four who reported lowest scores on the LSDQ, participated in follow-up qualitative interviews which inquired children's friendships, relationships with parents, attitudes toward school, and preferred coping strategies with loneliness experiences. It was found that there was a significant positive correlation between the child-reported and the parent-reported child loneliness scores, suggesting that parents were accurately aware of their children's loneliness levels. It was also found that the child-reported parent-child relationship and child loneliness were significantly and negatively correlated, meaning that the lower level of child-reported parent-child relationship quality, the higher level of child-reported child loneliness. Additionally, the qualitative data suggested that children with different levels of loneliness coped differently. They also seemed to hold different beliefs and expectations regarding their friendships, parent-child relationships, and attachments with school. Increasing our understanding of child loneliness will enable school and mental health professionals to develop more effective strategies to support children who are feeling extremely lonely and who may lack of home support. Identifying these at-risk children early and intervening with intensive individual plans through home-school collaboration may prevent poor long term academic and social-emotional outcomes.

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THE ASSOCIATION BETWEEN PARENT-CHILD RELATIONSHIP AND
CHILD LONELINESS: A MIXED-METHOD STUDY

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the Faculty of the Morgridge College of Education

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In Partial Fulfillment

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Master of Arts

by

Nanxi Xu

June 2017

Advisor: Maria T. Riva

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Relatively little research has been conducted to examine the role of parent-child relationships in understanding loneliness during middle childhood. In the current study, twelve second to fourth grade children attending several elementary schools in a large western urban district were asked to complete the Loneliness and Social Dissatisfaction Questionnaire (LSDQ, Asher, Hymel & Renshaw, 1984) and the Parent-child Relationship Questionnaire (PCRQ, Furman & Giberson, 1995). The parents of all child participants were also invited to complete the same questionnaires. A sample of eight children, four who reported highest scores and four who reported lowest scores on the LSDQ, participated in follow-up qualitative interviews which inquired children's friendships, relationships with parents, attitudes toward school, and preferred coping strategies with loneliness experiences. It was found that there was a significant positive correlation between the child-reported and the parent-reported child loneliness scores, suggesting that parents were accurately aware of their children's loneliness levels. It was also found that the child-reported parent-child relationship and child loneliness were significantly and negatively correlated, meaning that the lower level of child-reported parent-child relationship quality, the higher level of child-reported child loneliness. Additionally, the qualitative data suggested that children with different levels of loneliness coped differently. They also seemed to hold different beliefs and expectations

regarding their friendships, parent-child relationships, and attachments with school.

Increasing our understanding of child loneliness will enable school and mental health professionals to develop more effective strategies to support children who are feeling extremely lonely and who may lack of home support. Identifying these at-risk children early and intervening with intensive individual plans through home-school collaboration may prevent poor long term academic and social-emotional outcomes.

Table of Contents

Chapter One: Introduction	1
Status of the Literature	3
Justification for the Study	14
The Goals of the Study	16
Research Hypotheses & Questions	17
Definition of Terms.....	19
Loneliness.	19
Parent-Child Relationship.....	19
Chapter Summary	19
Chapter Two: Method.....	21
Study Design.....	21
Quantitative Phase	22
Participants.....	22
Instruments.....	24
Procedure	28
Data Analysis.	30
Qualitative Phase	30
Case Selection.....	30
Interview Protocol Development.....	32
Procedure.....	32
Data Analysis.....	33
Chapter Summary	34
Chapter Three: Results.....	35
Quantitative Phase	35
Survey Details and Response Rate.	35
Reliability of Measures.....	36
Demographic Information.....	36
Mean Comparisons for Variables between Groups.....	38
Exploration of Study Variables.....	39
Power Analysis and Sample Size.....	46
Statistical Analyses Addressing Research Hypotheses.....	47
Additional Analyses.....	49
Qualitative Phase	51
Narrative of Low Levels Loneliness Group.....	52
Narrative of High Levels of Loneliness Group.....	60
Formulated Meanings of Low Levels of Loneliness Group	69
Formulated meanings of High Levels of Loneliness Group.....	72
Exhaustive Descriptions of Loneliness Groups	77
Chapter Summary	80

Chapter Four: Discussion.....	82
Summary of the Study	82
Specific Findings and Implications of the Study	83
Parent-Child Relationship and Child Loneliness	83
Friendship and Child Loneliness	87
School and Child Loneliness	90
Meaning of Child Loneliness.....	93
Coping with Child Loneliness	95
Chapter Summary	97
Chapter Five: Summary	98
Summary of Findings and Implications.....	98
Limitations of the Study.....	103
Recommendations for Future Research	104
Conclusions.....	106
References.....	108
Appendix A.....	116
Letter to Schools and Organizations	116
Appendix B	119
Informed Consents and Assents.....	119
Appendix C	127
Screening Questions.....	127
Appendix D.....	128
Demographic Questionnaires	128
Appendix E	131
Parent-Child Relationship Questionnaire	131
Appendix F.....	133
Loneliness and Social Dissatisfaction Questionnaires.....	133

List of Tables

Table 1-Research Hypotheses.....	18
Table 2-Research Questions	18
Table 3-Demographics.....	31
Table 4-Child Demographics	37
Table 5-Parent Demographics.....	38
Table 6-Descriptive Statistics	40
Table 7-Descriptive Statistics (Child Gender).....	41
Table 8-"How often do you feel lonely?"	42
Table 9-"How much is being lonely a problem for you?"	43
Table 10-"How often does your child feel lonely?"	44
Table 11-"How much is being lonely a problem for your child?"	45
Table 12-Correlation Coefficients	46
Table 13-Friendship Significant Statements (Low Group).....	54
Table 14-Attitudes toward Mother Significant Statements (Low Group)	56
Table 15-Attitudes toward School Significant Statements (Low Group).....	58
Table 16-Loneliness Significant Statements (Low Group)	60
Table 17-Friendship Significant Statements (High Group).....	63
Table 18-Attitudes toward Mother Significant Statements (High Group).....	65
Table 19-Attitudes toward School Significant Statements (High Group)	67
Table 20-Loneliness Significant Statements (High Group).....	69
Table 21-Clusters of Common Themes (Low Group).....	72
Table 22-Clusters of Common Themes (High Group)	76

Chapter One: Introduction

Child loneliness has been relatively neglected in the research field compared to other foci such as conduct disorder, ADHD, and autism. This might be due to the fact that loneliness does not always cause children clinical disturbance, unlike major depression. It does not always trigger behavioral problems either. These reasons help to explain why child loneliness often does not catch teachers' and parents' attention (Vitaro et al., 1995). Nevertheless, this does not imply that child loneliness is trivial. To the contrary, child loneliness can cause significant long-term consequences that negatively impact children's well-being (Asher, Hymel, & Renshaw, 1984). Loneliness also can impede children in cognitive and social domains (Asher & Wheeler, 1985). Studies suggest that child loneliness can subsequently cause emotional, behavioral, and physiological problems such as peer victimization, withdrawn, and somatic symptoms. If left untreated, loneliness can develop into more chronic and severe problems as children grow up (Cassidy & Asher, 1992).

Loneliness is strongly linked to children's poor health. Lohre, Lydersen and Vatten (2010) discovered that somatic symptoms (e.g., headache, abdominal pain, etc.) may interfere with children's daily life and cause absence from school. These researchers found that loneliness was a risk factor that was significantly related to poorer health among children, especially among girls. Somatic complaints might represent the physiological expression of underlying emotional distress (Anttila et al., 2004; Dufton,

Dunn, & Compas, 2009; Larsson & Sund, 2005). Targeting children who manifest somatic problems may be a way to identify at-risk children for future intervention.

In addition to the negative impact on childhood quality, childhood loneliness also has long-term implications in adulthood. Preliminary studies showed that abdominal pain in childhood was associated with higher risk of both physical and mental disorders later in life (Hotopf et al., 1998; Walker et al., 1995). Hawkley and Cacioppo (2010) found that people who were more lonely reported worse physical health and experienced more chronic illness, even after accounting for important socio-demographic and health relevant risk factors. According to another study, the effect of loneliness is equivalent to the negative health effects of obesity (Holt-Lunstad et al., 2010). Lonely people experience a wide variety of health problems ranging from coronary heart disease to premature mortality. A recent study suggests that loneliness is linked to immune dysregulation and that lonely adults are more prone to acute stress compared to those who are not (Jaremka et al., 2012). People who experienced loneliness reported greater anxiety and perceived daily activities as more stressful and threatening compared to those who did not (Cacioppo et al., 2000). Additionally, loneliness may also influence sleep quality (Cacioppo et al., 2002). These biological consequences associated with loneliness provide compelling evidence that well-being is related to social support and bonding.

Lohre, Lydersen, and Vatten (2010) found that a supportive teacher-child relationship was a significant protective factor that predicted less somatic complaints among students. Other studies suggested that friendships could reduce the negative effects related to loneliness (Burgess et al., 1999; Cassidy & Asher, 1992). This

highlighted the importance of school professionals' and peers' role in ameliorating children's feelings of loneliness. Lohre et al. (2010) suggested that a combination of caring attention and strategic planning of school activities may reduce loneliness among children.

This chapter begins by providing an overview of the current status of the literature pertaining to child loneliness and its subsequent problems. Specifically, it describes how parent-child relationships influence the development of child loneliness over time. The chapter outlines the justification for studying loneliness, including the rationale as to how this study addressed limitations of previous work. The goals of the study and research hypotheses are then provided at the end of this section.

Status of the Literature

One of the pioneer studies on child loneliness initiated by Marcoen and Brumagne (1985) examined the distinctive effects of two types of loneliness among young adolescents: loneliness related to parents and loneliness related to peers. The researchers recruited 5th, 7th, and 9th grade students. The data on the two types of loneliness, choices of comfort figures, and peer perceived popularity were collected. It was found that 7th graders reported feeling less parent-related loneliness compared to 5th and 9th graders. The results also indicated that peer perceived popularity was a strong predictor of child loneliness and it negatively correlated with both types of loneliness. In other words, as popularity increases, feelings of loneliness decrease. The correlation between peer perceived popularity and both types of loneliness suggested that children and adolescents

who felt lonely with peers also typically felt lonely with their parents (Marcoen & Brumagne, 1985).

Additionally, in general, boys reported feeling more lonely than girls with respect to their parental relationships. Perhaps this is due to the fact that girls tended to report both parents as their choices of comfort figures, and they also tended to report peers as their comfort figures as they grew older; whereas boys only tended to report their mothers as their comfort figures across different age groups (Marcoen & Brumagne, 1985). One methodological flaw of this study is that the researchers developed their own child loneliness measure rather than using a well-established scale. Perhaps this is due to the fact that most child loneliness self-report questionnaires have not been well developed until more recently.

A longitudinal study demonstrated the prevalence of peer problems and the co-occurrence of different types of peer problems among peer rejection, withdrawal, loneliness, victimization, and bullying (Laine, Neitola, Auremaa, & Laakkonen, 2010). This study recruited 179 five-year old children and followed them across a two-year period. According to Ladd and Troop-Gordon (2003), peer ratings are commonly used in research studies with children concerning social relationships. In contrast, self-reports are not used as often when studying children. However, the researchers also stated that children's beliefs about self and peers might be best assessed through self-reports. In Laine et al. (2010)'s study, both methods were included. The researchers measured child loneliness by self-report, and peer rejection and bullying by peer ratings. Child withdrawal and victimization were measured using both self-reports and peer ratings. The

results indicated that 80% of the sample experienced loneliness at some point during the two-year period and 20% of the sample experienced two or more problems concurrently including loneliness (Laine et al., 2010). The results also suggested that loneliness was one of the most prevailing problems among children. The percentage of lonely children was 16.2% to 22.8%, which was higher than what was revealed in earlier studies, which reported that 10% to 14% of children reported feeling lonely (Asher & Paquette, 2003; Laine & Neitola, 2002).

Although the authors did not speculate what is the reason for the higher loneliness scores in their study, they did suggest that the reason for loneliness in their study might be a result of children being excluded by their peers from participating in social activities. The findings also illustrated variability among children who identified as lonely (Laine et al., 2010). It showed that some children's loneliness ameliorated over the two-year period, and other children's loneliness remained stable over time. These children who had a poor prognosis also were more likely to develop concurrent peer problems in addition to loneliness. Furthermore, another study found that peer problems were strongly associated with children's subsequent development of negative social experiences, problematic affective responses, and unsupportive relationships with others (Kupersmidt & DeRosier, 2004). Additionally, children with peer problems also tended to have low task-motivation and low reading skills by the time they reached the first grade (Laine et al., 2010).

In terms of peer selection and socialization, Mercer and Derosier (2010) conducted a study showing that children tended to befriend other children who shared the

same degree of loneliness. It also showed that children's degree of internalizing problems (i.e., loneliness, depression and social anxiety) became similar to their friends' levels over time. The researchers recruited third grade students because according to Kindermann, McCollam, and Gibsen (1995), this is a stage where children's social networks start to flourish. Self-reported measures of friend nominations, loneliness, depression, and social anxiety were used. All measures were collected twice, at the beginning and at the end of the third grade. The results illustrated the process of homophily, which was defined as the tendency toward similarity among friends (Lazarsfeld & Merton, 1954). Neumann and Strack (2000) explained that this emotional contagion might be caused by unintentional mimicry of facial expressions, postures, and verbalizations among friends. In addition, confluence could happen because of the transfer of depressive cognitive styles, which contributes to the increases in anxiety and depression among friends (Rose et al., 2007). Similar to previous literature (Boivin, Hymel & Bukowski, 1995; Nangle et al., 2003), Mercer and Derosier (2010) showed that experiencing high levels of loneliness can predict subsequent depression for many children. Previous research also suggested that internalizing problems may place children at greater risk for peer problems (Altmann & Gotlib, 1988; Connolly et al., 1992; Joiner, 2001). These findings imply that internalizing problems such as loneliness can reduce children's overall opportunities for making friends and can impede their ability to cope with peer problems in the long run.

Little is known about patterns of change in loneliness especially during middle childhood. Among the few studies that have investigated the patterns of change in

loneliness, it was reported that loneliness remains stable during kindergarten (Kochenderfer & Ladd, 1996) and from kindergarten to third grade (Kochenderfer-Ladd & Wardrop, 2001). However, little is known about patterns of change in loneliness during and after third grade. Nevertheless, understanding loneliness trajectory in middle childhood is critical because it plays a key role in identifying at-risk children for further intervention. Jobe-Shields, Cohen, and Parra (2011) conducted a longitudinal study to investigate patterns of change in loneliness from 3rd to 5th grades. According to Cassidy and Asher (1992), third graders started to describe loneliness from a psychological and abstract perspective rather than solely from a concrete perspective such as lack of contact. In the study conducted by Jobe-Shields et al. (2011), child loneliness was assessed in 3rd, 4th and 5th grade along with peer functioning indicators such as peer optimism and peer nominations of friends, the most-liked, the least-liked, and the victimized. Among all the indicators, peer optimism was defined as the expectation of good peer outcomes (i.e., children believe that they can create positive peer relationships), which was an important predictor of child loneliness, because expectations play a vital role in children's evaluations of their social competence (Deptula et al., 2006). According to the researchers, peer optimism links a child's peer functioning and his or her psychological outcomes.

Jobe-Shields, Cohen, and Parra (2011) categorized children into three groups based on their change of loneliness over a two-year period: the Stable Low, the Increasers and the Decreasers. The results showed that the Stable Low group was characterized by overall positive peer functioning. The increasers had elevated social withdrawal and peer

victimization, which possibly indicated a risk for developing later internalizing symptoms. The Decreasers might start with high levels of loneliness and low levels of peer functioning. However, the patterns became indistinguishable from the Stable Low group by 5th grade. Perhaps these children were adjusting to their social environment from 3rd to 5th grades. As their social experience became more positive, their loneliness decreased, which demonstrated the dynamic of peer optimism that developed over time (Jobe-Shields et al., 2011). What distinguished the Increaseers and the Decreasers was the fact that the Increaseers reported significantly and gradually lower peer optimism compared to the Decreasers. This indicated that the lack of peer optimism could be intimately tied to one's feeling of loneliness and negative peer experiences (Jobe-Shields et al., 2011). Improving children's social skills might enhance children's friendship formation and maintenance; it might also help to improve perceptions of peers and ameliorate feelings of loneliness (Jobe-Shields, et al., 2011).

While investigating patterns of change in child loneliness, Jobe-Shields et al. (2011) did not examine family functioning. Family functioning is a critical aspect of children's social emotional development and thus the impact of family function on children's loneliness cannot be ignored. Sharabi, Levi, and Margalit (2012) examined the impact of familial variables on child loneliness and protective factors for children's loneliness experiences. The study recruited 5th and 6th grade students and assessed their loneliness, sense of coherence, hope, effort, and family environment. In this research study, definitions were taken from earlier studies. Loneliness was defined as a child's subjective perception of social alienation (Qualter, Brown, Munn, & Rotenberg, 2010).

Sense of coherence was defined as a child's self-appraisal and self-perception about his or her predictability of what will happen and how much he or she is able to control in a given situation (Antonovsky, 1993). The concept of sense of coherence in Sharabi et al.'s (2012) study is similar to the concept of peer optimism brought up by Jobe-Shields et al. (2011) as both discussed a child's expectations and manageability in a given social situation. Family environment was defined as the emotional bonding among family members (i.e., family cohesion) and the ability of the family system to change (i.e., family flexibility) in response to situational needs (Olson & Gorall, 2003). Hope was defined as a child's belief in his or her ability to achieve a desired outcome (Snyder, 2006), and effort was defined as a child's level of investment in task accomplishment (Lackaya & Margalit, 2006). All data were collected via self-report measures. The researchers hypothesized that children's individual and familial variables would predict their strengths and risks in coping with their feelings of loneliness.

The results revealed that family cohesion, children's hope, and children's sense of coherence were protective factors for child loneliness. Subsequently, the researchers categorized family profiles based on family cohesion and family flexibility. They found that children in cohesive families reported the lowest levels of loneliness and the highest levels of personal strengths. In contrast, children in non-cohesive families reported the highest levels of loneliness and the lowest levels of children's sense of coherence. What distinguished children from these two family profiles was the fact that the children from cohesive families reported that their psychological well-being was associated with multiple factors such as child hope, child effort, and family cohesion. In contrast, the

children from non-cohesive families reported that their loneliness experience was only related to their sense of coherence. The family adaptability did not add significantly to the prediction. Therefore, Sharabi et al. (2012) concluded that the lack of family cohesion was a risk factor in predicting child loneliness which implied the importance of parent-child relationships that has been discussed in the literature.

Targeting young adolescents, Vitaro, Pelletier, Gagnon, and Baron (1995) investigated the predictive factors that contributed to the development of depressive symptoms. The male participants whose depressive symptoms increased between 11 to 13 years were compared with background-matched control participants whose depressive symptoms remained low over the same time period. The participants from both groups had similar scores across familial, academic, and social-emotional domains at the beginning of the time period. Results revealed that over the two-year period, the two groups differed on a number of variables including feelings of loneliness and parent-child relationships. This study is one of the first that discussed child loneliness in a context of parent-child relationships.

In the study conducted by Vitaro et al. (1995), both parent-child relationships and children's feelings of loneliness were assessed using self-report measures. Parent-child relationship was measured based on four aspects: parental supervision, time spent with family, parent-child communication, and mutual sharing of feelings. The results showed that compared to the control group, the participants whose depressive symptoms increased also exhibited significantly higher level of loneliness at the end of the two-year period. The results also showed that parent-child relationships for these participants were

of significantly lower quality compared to the control group. These participants reported significantly less parental supervision and more communication difficulty. They also reported having fewer friends compared to their control peers. To the contrary, their teachers did not rate their behaviors as more disruptive than their control peers. This implies that children who experience a higher level of loneliness do not necessarily show behavioral indications, and therefore, they do not gain the attention from teachers and parents who are occupied by behaviorally disruptive children. This study gives a clue about how child loneliness might change over time in a familial context. The findings indicated the possibility of using certain traits to identify at-risk children for prevention at an early age. In spite of the fact that the researchers investigated loneliness in a familial context, this study targeted early adolescence, and more research is needed to focus on child loneliness within the same context.

Goossen and Marcoen (1999) were interested in knowing how children and adolescents adjusted to life changes related to friendship, self-perception, values, and identities. The researchers were also interested in assessing whether it was common for this sample to deal with these developmental issues simultaneously. The researchers utilized a sentence completion task and a self-reported loneliness questionnaire. The sentence completion task asked participants to complete sentences that examined their perceptions in the several domains including feelings about being alone (i.e., solitude), relationship with parents, attitudes toward friendship, attitudes toward heterosexual relationships, and self-image. The participants' responses were categorized as constructive or negative. Constructive responses were seen as helpful, supportive, or

enjoyable in the sentence context. Negative responses were seen as unpleasant, harmful, or avoided in the sentence context. When there was no clear evaluative statement, the response was coded as neutral, and when both constructive and negative interpretations appeared, the response was coded as ambivalent. The loneliness questionnaire measured both the loneliness related to parents and the loneliness related to peers. The participants' attitudes toward aloneness, either positive or negative, were also assessed in the questionnaire.

Goossen and Marcoen (1999) recruited 5th to 11th graders and the results revealed that participants' perceptions of loneliness changed over time. Their attitudes toward parent-child relationship were positive at the beginning of the 5th grade. In contrast, their attitudes toward aloneness were negative at the beginning of the 5th grade. However, this pattern was reversed by the end of 11th grade. The participants were more likely to show a positive attitude toward solitude and a negative attitude toward parent-child relationship. These trends remained true for both boys and girls in the sample. These findings strongly suggested that the changes in adolescent relationships and attitudes reflected a process of individualization (Goossens & Marcoen, 1999). Additionally, the researchers found that negative feelings about being alone, concerns about heterosexual relationships, friendship rejection, poor self-image, and problems with parent-child relationships, did not emerge all at once during the 5th to 11th grade time period, but seemed to emerge one by one. The sequential manner of issues emerged in adolescents' life may create a buffer so that they would be less likely to be overwhelmed by their social, emotional and cognitive development. This research study pointed out the

critical period at 5th grade when children started to shift their attitude toward aloneness and parent-child relationship, which is especially important in understanding child loneliness and help children to cope with loneliness.

Coping with child loneliness is a neglected research area, especially in studying real loneliness experiences. Besevegis and Galanaki (2010) conducted a longitudinal study to examine children's coping methods toward loneliness during early, middle and late childhood. Interviews were conducted with 2nd, 4th and 6th grade students. Results showed that as age increased, contact seeking (e.g., seek support from others), problem solving (e.g., acquire social skills), behavioral regulation (e.g., keeping busy through other activities), and cognitive restructuring (e.g., trying to forget loneliness, diverting attention, positive self-talk) were more often used by children in coping with loneliness. A possible explanation for the increase was that older children were able to handle loneliness-provoking situations better due to their more advanced metacognitive abilities (Besevegis & Galanaki, 2010). In general, a greater number and variety of ways of coping increased with children's age. Some gender differences emerged from the study as well. Girls reported using more emotion-focused strategies (e.g., emotion expression such as crying) and cognitive strategies (e.g., restructuring) in coping with loneliness. Additionally, girls also had a larger coping repertoire than boys as their age increased. This suggested that perhaps the girls demonstrated more "maturity" in coping with loneliness compared to same-age boys, and that girls tended to show an emotional response to loneliness (Besevegis & Galanaki, 2010). A model explaining the diversity of coping styles is in need. However, this cannot be done unless researchers have a better

understanding of other issues such as: how child loneliness becomes more problematic over time and what risk factors and protective factors are related to child loneliness.

Justification for the Study

There is a need to study child loneliness within the context of the parent-child relationship. Child loneliness can lead to a vast array of negative consequences such as health concerns (Jaremka et al., 2012), which creates a need to focus research in this area with the hope of providing understanding that can guide prevention, early identification, and treatment. In the empirical literature related to child loneliness, relatively little research has been conducted to better understand the role of parent-child relationships. The studies that have discussed this particular issue indicate that the parent-child relationship plays a vital role in understanding and intervening in child loneliness (Vitaro et al., 1985). Perceived positive parent-child relationships can be a protective factor for a child's social and emotional adjustment (Sharabi, Levi, & Margalit, 2012). A lack of adequate perceived parental support seems to be related to subsequent child loneliness and other related symptoms such as somatic complaint, academic withdrawal, and peer problems (Lohre, Lydersen, & Vatten, 2010).

A shortcoming of the literature is that those researchers who have investigated child loneliness related to familial variables often only focused on children's perceptions using self-report measures and did not examine parental perceptions. For example, it is possible that a child does not share his or her parent's view when it comes to parent-child relationship. A parent can perceive that he or she provides abundant parental support and has a great relationship with his or her child. However, his or her child might perceive the

situation very differently. Therefore, it is very important to incorporate both the child's and the parent's perceptions when it comes to investigating the parent-child relationship. The possibility of mismatched perceptions may help to better understand the process of child loneliness.

Another weakness in previous studies of child loneliness is that the researchers have primarily recruited children and adolescents from the general population. The researchers rarely focused on lonely children specifically. They often have compared lonely children and non-lonely children, and rarely compared children who experience different levels of loneliness. Since some children experience more loneliness than others; compared to the children who experience less loneliness, the children who experience more loneliness are likely to function differently across socio-emotional, cognitive, and behavioral domains. Therefore, compared to less-lonely children, more-lonely children are expected to have different challenges and consequences due to the higher intensity and longer duration of loneliness they are facing. It is also unknown whether the two groups have different perceptions on parent-child relationships, which can be critical in understanding the mechanism of child loneliness.

In addition, according to Jobe-Shields et al. (2011), many studies have focused on early childhood (i.e. prior to 2nd grade) or late childhood (i.e. post 4th grade), and left the middle childhood (2nd to 4th grade) unexamined. Middle childhood is a critical period because according to researchers, it connects to early adolescence when a series of developmental issues take place. The researchers argued that latent factors such as loneliness may be hidden in middle childhood and will not reflect serious problems until

much later (e.g., depressive symptoms, social withdrawal, school dislike). The latent factors may predict children's mental well-being in the long run (Jobe-Shields et al., 2011), and it is important to identify those factors so that appropriate intervention strategies can be implemented in a timely manner. Therefore, studying 2nd to 4th grades in research serves the goal for early identification of at-risk children.

Finally, previous studies have utilized self-reported questionnaires and Likert scales in measuring child loneliness and with the results presented in a quantitative manner. It will be beneficial to include a structured interview with children in assessing their loneliness, which can yield a more in-depth view of the developmental course and coping mechanisms of lonely children. The current study addresses these knowledge gaps in understanding middle childhood loneliness through incorporating both the child's and the parent's perceptions, utilizing both quantitative and qualitative questionnaires, and categorizing the level of loneliness based on their responses to standardized measures.

The Goals of the Study

The first purpose of this study is to examine child loneliness and parent-child relationships among 2nd to 4th grade students who identify as at least somewhat lonely. The second purpose is to compare and contrast children who are more lonely and the children who are less lonely. The two groups may differ in various ways such as the quality of friendship, views on school, and the choices of comfort figures. This study will explore how children with different levels of loneliness cope differently in terms of dealing with their loneliness. The goal is to gather protective factors to better understand what can be done to ameliorate lonely children's experiences. The current study adds

significantly to the literature because it addresses some of the described limitations in the research design and it is built upon the groundwork established by previous studies.

Overall, the results of this study can add new information to the understanding of child loneliness due to its investigation of dual-perceptions of parent-child relationships and levels of loneliness.

Research Hypotheses & Questions

The correlational variables for the research hypotheses are the child loneliness and the parent-child relationship. Both child-reports of child loneliness and parent-reports of their child's loneliness will be collected along with child and parent reports of the child-parent relationship. Children's perceptions of themselves, their families, friends, and school will be obtained through structured interview questionnaire. Table 1 includes the hypotheses of the study and Table 2 includes the explorative research question of the study.

Table 1-Research Hypotheses

Hypotheses	Measurements	Data Analysis
1. It is predicted that there will be a negative correlation between the child-reported child loneliness level and the child-reported parent-child relationship quality.	Children's LSDQ total score Children's PCRQ Personal Relationship subscale score	Pearson product-moment correlation
2. It is predicted that there will be a negative correlation between the parent-reported child loneliness level and the parent-reported parent-child relationship quality.	Parents' LSDQ total score Parents' PCRQ Personal Relationship subscale score	Pearson product-moment correlation
3. It is predicted that there will be a positive correlation between the child-reported and the parent-reported child loneliness.	Children's LSDQ total score Parents' LSDQ total score	Pearson product-moment correlation
4. It is predicted that there will be a positive correlation between the child-reported and the parent-reported parent-child relationship quality.	Children's PCRQ Personal Relationship subscale score Parents' PCRQ Personal Relationship subscale score	Pearson product-moment correlation

Table 2-Research Questions

Questions	Measurements	Data Analysis
1. How do children with low and high levels of loneliness differ in terms of their friendships, relationships with parents, attitudes toward school, and loneliness experiences?	Interview Questions	Constant comparison analysis

Definition of Terms

Loneliness. Loneliness is defined as a child's subjective perception of social alienation. It is a mental state resulted from a negative appraisal of lack of social support. It describes a psychological perspective and it is different from a concrete perspective such as lack of friends (Qualter, Brown, Munn, & Rotenberg, 2010).

Parent-Child Relationship. Parent-child relationship is defined as the perception of relational quality between a parent and a child. The relational quality depends on several factors including the expression of affection, communication style, interacting patterns, and the perception of intimacy (Furman & Giberson, 1995).

Chapter Summary

Loneliness is a significant problem that affects many children. It has multi-faceted impact on children's daily functioning and can lead to long-term negative effects. The current literature demonstrates many potential risks that loneliness presents to children's socio-emotional adjustment. It is clear that loneliness has negative implications for a variety of subsequent problems such as somatic complaints, social anxiety, and poor academic performance. There is evidence that protective factors for child loneliness exist and not all lonely children have poor prognoses. It is of interest to better understand the role that parent-child interactions play in either helping children overcome their loneliness or exacerbating their difficulties. Little is known about how parent-child relationship quality impacts the development of loneliness in middle childhood. This study addressed some limitations of prior work in its investigation of child loneliness,

from both the children's and the parents' perspectives. The next chapter outlines this study's research methodology and design.

Chapter Two: Method

This study explored the association between children's self-reported loneliness level and self-reported parent-child relationship and the association between parent-reported child loneliness level and parent-reported parent-child relationship. The relationships between parents' and children's perceptions of the child loneliness level and the parent-child relationship were also explored. Additionally, a subgroup of children who reported low levels of loneliness and a subgroup of children who reported high levels of loneliness were interviewed to obtain more in-depth views regarding their friendships, attitudes toward parents, attitude toward schools, and coping methods with loneliness experiences.

Study Design

To answer the study research questions, the researcher used a mixed methods approach (Teddlie & Tashakkori, 2009), which is a procedure for collecting, analyzing and integrating both quantitative and qualitative data at some stage of the research process within a single study. The rationale for using both types of data is that neither quantitative nor qualitative methods are sufficient by themselves to capture the complexity of the child loneliness phenomenon, such as how children with different levels of loneliness cope differently with their loneliness experiences. When used in combination, quantitative and qualitative methods complement each other and provide a

more complete picture of the research questions (Green, Caracelli & Graham, 1989; Johnson, Onwuegbuzie, & Turner, 2007; Tashakkori & Teddlie, 1998).

This study used a mixed methods sequential explanatory design, consisting of two distinct phases: quantitative followed by qualitative (Creswell et al., 2003). In this design, the researcher first collected and analyzed the Parent-Child Relationship Questionnaire (PCRQ, Furman & Giberson, 1995) and the Loneliness and Social Dissatisfaction Questionnaire (LSDQ, Asher, Hymel & Renshaw, 1984) from parents and children. The interviews with the subgroups of children are conducted and analyzed in the second phase, which helped to elaborate on the quantitative results obtained in the first phase. The quantitative data and their analyses provided a general understanding of the association between child loneliness and parent-child relationship. The qualitative data and their analyses explored children's views on loneliness, parent-child relationship, friendship, and school in more depth (Creswell, 2003; Tashakkori & Teddlie, 2003).

The quantitative and the qualitative phases were given equal weight in this study. The two phases were connected when selecting subgroups of children for interviews. The interview questions were built on the questionnaire items, and the results of the quantitative and qualitative data are integrated during the discussion of the outcomes of the entire study.

Quantitative Phase

Participants. Twelve second to fourth grade students, six boys and six girls, participated in the quantitative phase of the study. The participants' ages ranged from seven to ten years old ($M_{age} = 8.7$ years, $SD = 1.1$ years). They were attending the

following schools upon participation: (a) three public elementary schools in Douglas County District, (b) a public elementary school in Cheery Creek District, (c) an elementary school in Denver Public School District, (d) a charter elementary school in Aurora, and (e) a private elementary school in Denver. One participating child was African American and the rest of the child sample was Caucasian. All children indicated their primary language as English.

One parent per student also participated in this phase. Only biological mothers volunteered to participate in this study. One participating mother was African American and the rest of the parent sample was Caucasian. Five mothers reported having a graduate degree. Four mothers reported having a college degree. One mother reported having some graduate work. All parents indicated their primary language English. Among the twelve children participated in this phase, two of the boys and two of the girls were siblings, and therefore their mothers filled out questionnaires separately for each child. Due to the small sample size of this study, these data were included.

Participants were invited to participate if they met the following inclusion criteria:

1. The child was in 2nd, 3rd, or 4th grade and might feel somewhat lonely or have friendship problems.

2. The child and the parent were willing to complete all questionnaires listed below. The parent figure could be the child's biological, adopted, step-parent or other family member who spent the majority of time with the child during his or her daily life (at least four days in a week).

3. The child and the parent would need to complete questionnaires in English and therefore they needed to be fluent in English.

Participants would have been excluded for the following reasons, which were assessed by the screening questions; however no participants met these criteria:

1. The child was manifesting severe psychological problems, such as psychosis, suicidal behaviors, etc.

2. The child failed to demonstrate age appropriate intellectual development such that they would be unable to complete the measures.

3. Foster children would be excluded due to the shorter time period that foster children typically spent at foster homes.

Instruments

Screening Questions. Screening questions were completed over the phone by parents who were interested in the study. The purpose of the questions was to ensure that children who participated in the study met the inclusion criteria and did not meet any exclusion criteria. First, a parent was asked what grade their child was in and what their relationship was to the child. The purpose of this question was to ensure the targeted population (i.e., 2nd to 4th grades) and to exclude foster families due to the relatively short period of parent-child contact. All of the children who participated in this study fell between this grade range. Second, to be qualified for the study, a parent was asked whether their child was experiencing any friendship difficulty. All of the parents indicated that their child was experiencing at least somewhat difficulty making friends or maintaining friendships. Third, a parent was asked whether they lived with the child. The

purpose of this question was to make sure that the parent was a primary caregiver for the child. Fourth, a parent was asked whether their child was receiving help from mental health professionals outside of school. Two out of twelve parents answered “yes” to the question. The follow up question was asked “what are the main reasons for your child receiving mental health help?” One parent reported that her child had ADHD related problems and the other parent reported that her child had emotion regulation problems due to transitioning to a new school. For these two parents who answered “yes” to the above question, they were also asked whether their child received a mental health diagnosis. One parent reported her child was diagnosed with ADHD and one parent reported her child received no diagnosis. The parent who reported ADHD related problems indicated that the diagnosis would not interfere with her child’s current ability to participate in this study, because the child read well and did not have any intellectual disability or severe psychological problems (e.g., major depression, psychosis, suicidal behaviors). (See Appendix C.)

Demographic Questionnaires. Demographic Questionnaires were completed by parents and children separately to provide independent data about the participants. Information on the child Demographic Questionnaire included: name, age, gender, ethnicity, grade level, and primary language. In addition, children were asked to rate the frequency to which they felt lonely on a 5-point Likert scale ranging from “I am never lonely” to “I am always lonely.” Children were also asked to rate how much being lonely was a problem on a 5-point Likert scale ranging from “Loneliness is never a problem” to “Loneliness is always a problem.”

The parent Demographic Questionnaire included: parent's name, child's name, relationship to the child, parent's gender, parent's ethnicity, parent's highest educational level, and parent's primary language. In addition, parents were asked to rate the frequency to which their child was lonely on a 5-point Likert scale ranging from "My child is never lonely" to "My child is always lonely." Parents were also asked how much they believed that being lonely was a problem for their children on a 5-point Likert scale ranging from "Loneliness is never a problem" to "Loneliness is always a problem." The purpose of the demographic questionnaires was to gather relevant descriptive information about the sample. (See Appendix D.)

Parent-Child Relationship Questionnaire (PCRQ). The PCRQ (Furman & Giberson, 1995) is a questionnaire that measures parent-child relationship quality and it consists of parallel child and parent versions to assess the parent-child relationship. The PCRQ measures five factors, which are warmth, personal relationship, disciplinary warmth, power assertion, and possessiveness. Furman (2001) recommended that subscales could be used independently when the factor scores, rather than the total scores, were of interest. The factor of personal relationship was the primary interest of this study, and therefore, it was appropriate to only use the items from the personal relationship subscale. Also, according to Gerdes, Hoza, and Pelham (2003), the personal relationship subscale was consistently and strongly correlated with other subscales in the questionnaire. Therefore, it is reasonably safe to assume that the personal relationship subscale captures the holistic view of the questionnaire. The personal relationship subscale consists of 10 items (e.g., "How much do you and this parent figure go places

and do things together?"). Each item is rated on a 5-point Likert scale ranging from "Hardly at all" to "Extremely much." Scores on the personal relationship factor range from 10 to 50. Higher scores indicate more intimacy, companionship, and nurturance. Gerdes, Hoza, and Pelham (2003) reported satisfactory internal consistency for the PCRQ personal relationship subscale. It was reported that Cronbach's alpha scores for children's reports of the mother-child relationship ranged from .63 to .88, and Cronbach's alpha scores for mothers' reports of the mother-child relationship ranged from .71 to .83. Psychometric data for children's reports is based on a sample of children ages 7 to 12, including a majority of Caucasian and a minority of African American participants. Psychometric data for mother's reports is derived from a sample of mothers of children between ages 7 to 11. Good to excellent internal consistency was also found in the current study on the personal relationship subscale. The Cronbach's alpha scores were .76 for parents' reports and .91 for children's report. (See Appendix E.)

Loneliness and Social Dissatisfaction Questionnaire (LSDQ). The LSDQ (Asher, Hymel, & Renshaw, 1984) is a questionnaire that measures child loneliness. It is composed of 24 items. Among the 24 items, 16 items are assessing children's feelings of loneliness, social adequacy and subjective perceptions of peer status (e.g., "Is it hard for you to make friends at school?"). The other 8 items are filter items (i.e., items 2, 5, 7, 11, 13, 15, 19, 23), which are used to disguise the true purpose of the assessment and make participation feel less intrusive (e.g., "Do you like to read?"). Responses to questions are measured by a 5-point Likert scale, ranging from "Definitely yes" to "Definitely no." Scores on LSDQ core items range from 16 to 80. Higher scores indicate more feelings of

loneliness, social inadequacy and lower perceived peer status. Reverse scoring was applied to 6 items (i.e., items 6, 9, 12, 17, 20, 21). The questionnaire has been shown to have good to excellent internal consistency with Cronbach's alpha scores ranging from .74 to .94 (Findlay et al., 2009; Kingery & Erdley, 2007). Psychometric data are derived from samples of 3rd to 6th grade students in the United States and Canada. The children were mostly Caucasians with a small number of African American, Asian, and Hispanic children. In addition, to adapt for this study, questions listed on the original questionnaire were rewritten from a parent's perspective. Generally the LSDQ is only given to the child. In this study, it is also given to the parent to assess the correlation between the child's perception and the parent's perception. There is no internal consistency reported on this adaptive version of the questionnaire. Excellent internal consistency was found in the current study on the LSDQ questionnaire. The Cronbach's alpha scores were 0.96 for parents' reports and 0.89 for children's report (See Appendix F).

Procedure

Recruitment of participants. Approval was obtained from the Institutional Review Board for Human Subjects at the University of Denver. Following, recruitment of participants began. After school programs, private schools, charter schools, and public schools in greater Denver area were contacted through email with a description of the study (see Appendix A) and a research study flyer. The researcher also distributed flyers at an on-campus event held for parents and children who were interested in learning about higher education at the University of Denver. Additionally, the researcher passed along the study information to her colleagues and friends who knew parents with children

of the interested age range. Interested parents contacted the researcher directly through the information listed on the study flyer. The researcher thanked the parent for her interest to the study and then the parent was screened over the phone to ensure their eligibility for the study. All calling parents and their children met the criteria for the study.

Informed consents and assents. Once a parent and a child agreed to participate, the researcher and the parent discussed when and where to meet to complete the consent and assent forms (see Appendix B) and the questionnaires. The researcher, the parent, and the child met at the agreed location (e.g., library) at the designated time. Upon meeting, the researcher explained to the parent and the child what the study was about, the limits of confidentiality, and the risks and benefits associated with them while participating in the study. After all the questions had been addressed, the parent completed the consent form, and the child completed the assent form.

Data collection. The child was asked to complete the Demographic Questionnaire, the PCRQ Personal Relationship Subscale – Child Form, and the LSDQ – Child Form. While children were completing his or her questionnaires, parents were asked to complete the Demographic Questionnaire, the PCRQ Personal Relationship Subscale – Parent Form, and the LSDQ – Parent Form. It took child participants about 15 to 20 minutes to complete all the questionnaires, and it took parent participants 10 to 15 minutes to complete all the questionnaires. At the end of the study, the parent and the child were thanked. The parent was entered into a random drawing for one of eight \$25 gift cards and the child picked a toy from a toy box brought by the researcher. Among the

ten participating parents, two parents voluntarily declined the chance to be offered a gift card. Therefore, each of the other eight parents was compensated with one gift card.

Data Analysis. Data collected from the parents and the children were paired for analysis. Correlational coefficients were calculated for the PCRQ child total scores and the PCRQ parent total scores, the LSDQ child total scores and the LSDQ parent-reported child total scores, the PCRQ child total scores and the LSDQ child total scores, the PCRQ parent total scores and the LSDQ parent-reported child total scores. Additionally, independent t-tests were performed to see whether there were differences between children's and parents' reports on the following questions "how often does the child feel lonely?" and "how much being lonely is a problem for the child?" Gender differences in terms of how boys' and girls' total scores on the PCRQ and the LSDQ were also examined.

Qualitative Phase

Case Selection. During the first phase, children's LSDQ total scores were calculated. Child scores ranged from 21 to 46. Among twelve children contacted, eight children, four boys and four girls, participated in the qualitative phase. The participating children were divided into two groups: low loneliness group and high loneliness group. Four children, two boys and two girls, were in the low loneliness group and their scores were 22, 24, 27, and 32. Four children, two boys and two girls, were in the high loneliness group and their scores were 35, 37, 40, and 45. However, the child who originally scored 35 on the LSDQ in the high loneliness group reported a decreased level of loneliness. During the interview, this child reported 1 out of 5 when asked how much

he felt lonely. His response to this interview question was similar to other children’s responses in the low loneliness group. In contrast, the child who originally scored 32 on the LSDQ in the low loneliness group reported an increased level of loneliness. During the interview, this child reported 4.5 out of 5 when asked how much he felt lonely. His response to this interview question was similar to other children’s responses in the high loneliness group. Therefore, the researcher categorized the child who scored 32 initially into the high loneliness group and categorized the child who scored 35 initially into the low loneliness group for data analysis. One child from the low loneliness group was African American and all other seven children were Caucasians. All children were born and raised in the United States. Only children participated in this phase. No parent participated. See Table 3 for a summary of child participants’ demographic information.

Table 3-Demographics

Pseudonym	Age	Race	Interview Date	Interview Location	Length of Interview
Low Loneliness Group					
Mara	9	Caucasian	7/23/16	Home	0:11:08
Sarah	10	African American	7/18/16	Library	0:16:02
Adam	8	Caucasian	7/15/16	Home	0:12:46
Leo	9	Caucasian	8/17/16	Home	0:07:53
High Loneliness Group					
Emma	10	Caucasian	8/1/16	Home	0:12:00
Andrea	8	Caucasian	8/1/16	Home	0:32:48
Branden	7	Caucasian	7/28/16	Home	0:14:01
Jake	7	Caucasian	7/20/16	Home	0:10:45

Interview Protocol Development. The content of the semi-instructed interview protocol was grounded in the quantitative questionnaires and relevant literature. The goal of the qualitative phase was to explore what were the similarities and differences among children who reported low levels of loneliness and high levels of loneliness regardless of the parent's report. Specifically, how the two groups of children were similar and different in terms of their peer relationships, attitudes toward parent, attitudes toward school, and their coping strategies with loneliness experiences. The interview questions covered these four domains and there were a total 22 questions. The questions were a mix of open-ended questions (e.g., "What does loneliness mean to you?") and scaling questions (e.g., "On a scale of 1 to 5, with 1 being the least, and 5 being the most, how much do you like school?"). The questions were designed by the researcher and were revised by the researcher's committee members. There was no reliability or validity data reported on these questions from previous literature. (See Appendix G.)

Procedure. At the end of the quantitative phase of the study, the researcher asked the participating families whether they were interested in participating in a follow-up child interview to better understand the phenomenon of child loneliness. If they showed interests, the parent filled out a re-contact form and was contacted in a few months if they met criteria. In this study, all parents showed interest in participating in the qualitative phase of the study, and due to the small sample size, all children were invited and eight of them participated in the follow-up interview. Seven interviews were conducted at participants' homes. One interview was conducted at the quiet area of Aurora Public Library. All the interviews were conducted over a one month period.

After the family agreed to meet for the interview, the parent and the researcher discussed when and where to complete the parental permission form and the assent form (see Appendix B). The researcher, the parent, and the child met at the agreed location (e.g., child's home) at the designated time. Upon meeting, the researcher explained to the parent and the child what the interview was about, the limits of confidentiality, and the risks and benefits associated with the child while participating in the interview. After all the questions had been addressed, the parent signed the parental permission form, and the child signed the assent form. Before the interview started, the parent was asked to leave the room to protect the child's privacy. At the end of the child interview, the child was asked to pick a toy from the toy box brought by the researcher, and the parent was compensated with \$10. Among the participating eight families, six parents received their money and two parents voluntarily declined the compensation.

Data Analysis. Each interview was audio taped and transcribed verbatim. Colaizzi's (1978) phenomenological method was used in analyzing children's interviews. The analysis was performed between children from the low loneliness group and the high loneliness group. Steps included: (1) preliminary exploration of the data by reading through the transcripts and writing memos; (2) identifying significant phrases and sentences about child loneliness experiences from each transcript; (3) formulating meanings from the significant phrases and sentences; (4) clustering meanings into themes; (5) integrating results to develop exhaustive descriptions of the low levels and high levels of child loneliness experiences. According to Moustakas (1994), a final phenomenological description should include what the participants experienced with the

phenomenon and how the experience happened. This description captured the essence of the phenomenon, and it gave an accurate and clear presentation of the experience. My exhaustive descriptions included what it looked like for children from the two groups to experience loneliness and how they experienced this phenomenon differently in terms of their friendships, attitudes toward mother, and attitudes toward school.

Findings of the child interviews were verified through literature searches, adhering to the phenomenological data analysis method, bracketing past experiences, keeping field notes, and developing rich and thick descriptions of the cases (Frankel, 1999; Meadows & Morse, 2001). The validity of the interviews was the outcome goal of the research and was based on trustworthiness and academic advisor's auditing (Creswell & Miller, 2000; Kearney, 2001).

Chapter Summary

This chapter reviewed the methods of data collection and analysis for the quantitative and the qualitative phases of the study, including recruitment of participants, informed consent and assent, and completion of questionnaires and child interviews. The quantitative phase used the parent and child versions of the Demographic Questionnaire, the PCRQ Personal Relationship Subscale, and the LSDQ. The qualitative phase used the interview questions in working with children. These measures were used to determine associations between degrees of child loneliness and parent-child relationship quality as well as the similarities and differences between the children from the low levels and the high levels of loneliness in terms of peer relationships, attitude toward parents, attitude toward schools, and coping methods with loneliness experiences.

Chapter Three: Results

Quantitative Phase

This section will present the quantitative analyses associated with this study. First, the preliminary results are outlined. It includes survey response rate, the participants' demographic information, descriptive statistics, mean comparisons of variables between groups, an examination of study variables, and an overview of power and sample size. The preliminary results are followed by the primary analyses which related to the four hypotheses. Results of follow-up analyses are also presented. All statistical analyses were performed with the use of the Statistical Package for the Social Science version 24 (SPSS 24). Alpha levels were set at .05 for all analyses. Guidelines by Cohen (1988) were used to interpret correlation coefficient values. The size of the correlation was considered small if r was .10 to .29, moderate if r was .30 to .49, and large if r was .50 to 1.0. This is a pilot study on parent-child relationship and child loneliness during middle childhood. The findings of this study are limited due to its small sample size. Future research should include larger sample size and verify the accuracy of these findings.

Survey Details and Response Rate. Approximately 400 study flyers were distributed to second to fourth grade children. The researcher distributed 100 flyers to parents directly, and dropped off another 300 flyers at schools that helped to send them home. Because it is unknown how many of these 400 families would meet the criteria to participate in the study, it is impossible to calculate the return rate. Twelve mothers and

one father called and indicated interest in participating in the study. All the 13 parents and their children were eligible for the study and 10 mothers completed the study with their children. Among the 10 mothers participating in the study, two mothers each had two children participating in the quantitative phase of the study. The two mothers filled out questionnaires separately for each child. Due to the small sample size, no children were excluded. Data collected from 12 mother-child dyads were used for data analysis in the quantitative phase of the study. There was no missing data or multiple responses.

Reliability of Measures. Reliability of the measures was calculated to ensure that current sample was comparable to the norm samples. Cronbach's alpha was .76 for the Parent PCRQ, .91 for the Child PCRQ, .96 for the Parent LSDQ, and .89 for the Child LSDQ. These values are all comparable to or greater than the reliability values obtained from the norm samples for each measure used in this quantitative phase, except for the Parent LSDQ, which did not have an established reliability value from previous research studies. The Parent LSDQ was created by the researcher for this study only. In conclusion, it can be assumed that the current sample was comparable to the norm samples.

Demographic Information. A Demographic Questionnaire designed for the study was used to collect information regarding parents' and children's demographic characteristics. See Table 4 for a summary of child participants' demographic information. See Table 5 for a summary of parents' demographic information.

Table 4-Child Demographics

Demographics	Frequency	Percentage
Total Participants	12	100.0
Child Age Range		
Seven	2	16.7
Eight	3	25.0
Nine	3	25.0
Ten	4	33.3
Child Gender		
Male	6	50.0
Female	6	50.0
Child Race/Ethnicity		
Caucasian	11	91.7
African American	1	8.3
Child Grade Level		
Second	5	41.7
Third	3	25.0
Fourth	4	33.3
Child Primary Language		
English	12	100.0
Other	0	0

Table 5-Parent Demographics

Demographics	Frequency	Percentage
Total Participants	10	100.0
Parent Gender		
Female	10	100.0
Male	0	0
Parent Relationship to Child		
Biological Parent	10	100.0
Other	0	0
Parent Race/Ethnicity		
Caucasian	9	90.0
African American	1	10.0
Parent Education Level		
College Degree	4	40.0
Some Graduate Work	1	10.0
Graduate Degree	5	50.0
Parent Primary Language		
English	10	100.0
Other	0	0

Mean Comparisons for Variables between Groups. An independent sample t-test showed that children and parents did not significantly differ on scores for child-reported and parent-reported parent-child relationship quality. It also showed that children and parents did not significantly differ on scores for child-reported and parent-reported child loneliness level. Analyses were also conducted to examine whether any significant differences existed between participating children's gender and grade level.

Before combining male and female children and different grade levels, it was important to determine if any differences in the study variables existed among them. One-way between subjects Analyses of Variance (ANOVAs) and t-tests were conducted to examine differences in: (a) child-reported PCRQ, and (b) child-reported LSDQ. Mean comparisons by grade level. Levene's Test showed that the assumption of homogeneity of variance was not violated for the child-reported PCRQ and the child-reported LSDQ for the one-way ANOVAs comparing differences in both measures according to children's grade levels. Results of the one-way ANOVA indicated that children did not significantly differ according to grade level on: (a) child-reported PCRQ, and (b) child-reported LSDQ.

Mean comparisons by gender. Independent sample t-tests were conducted to compare the scores for boys and girls on the child-reported PCRQ and the child-reported LSDQ. Levene's Test for Equality of Variance indicated that equal variance was assumed for both measures: (a) child-reported PCRQ, and (b) child-reported LSDQ. A significant difference was found in child-reported PCRQ scores between girls and boys, $t(10) = 3.30, p < .01$. Girls ($M = 42.00, SD = 6.57$) reported significantly higher scores on PCRQ than boys ($M = 29.67, SD = 6.38$). This suggests that girls reported better relationship quality with their mothers compared to boys. The girls and the boys did not differ significantly on their LSDQ scores. This suggests that girls and boys reported similar loneliness levels.

Exploration of Study Variables. Descriptive analyses of the study variables were performed to determine if the data showed sufficient variability within this sample

(see Table 6). Descriptive statistics were also presented separately for males and female children (see Table 7). Histograms showing the score variability in the frequency of experiencing child loneliness according to children’s and parents’ ratings on a Likert scales (1 = “Never lonely”, 5 = “Always lonely”) were included (see Table 8 and 9). Histograms showing the score variability in the degree of viewing loneliness as a problem according to children’s and parents’ ratings on a Likert scales (1 = “Never a problem”, 5 = “Always a problem”) were also included (see Table 10 and 11). An examination of the data suggested that the variability was moderately sufficient. The data showed there was a lack of low end of the PCRQ and a lack of high end of the LSDQ for both child and parent participants. Table 12 provided the correlation coefficients for the study variables.

Table 6-Descriptive Statistics

Variables	N	Mean	SD	Measure Range	Sample Range
Child-reported parent-child relationship quality	12	35.83	8.92	10-50	23-48
Parent-reported parent-child relationship quality	12	38.42	4.14	10-50	31-45
Child-reported child loneliness	12	33.75	9.08	16-80	21-46
Parent-reported child loneliness	12	33.33	10.29	16-80	18-49

Table 7-Descriptive Statistics (Child Gender)

Variables	N	Mean	SD	Measure Range	Sample Range
Girl-reports parent-child relationship quality	6	42.00	6.57	10-50	33-48
Boy-reported parent-child relationship quality	6	29.67	6.38	10-50	23-41
Girl-reported child loneliness	6	29.17	8.09	16-80	21-40
Boy-reported child loneliness	6	38.33	8.09	16-80	27-46

Table 8-"How often do you feel lonely?"

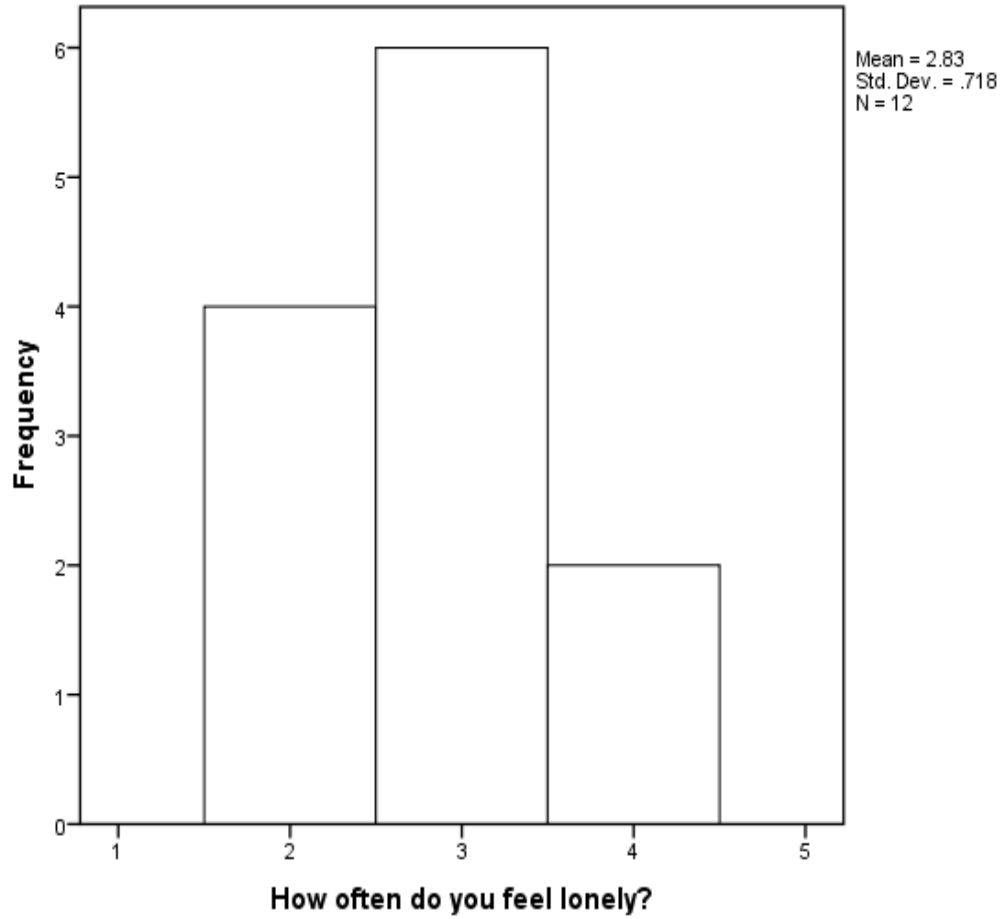


Table 9-"How much is being lonely a problem for you?"

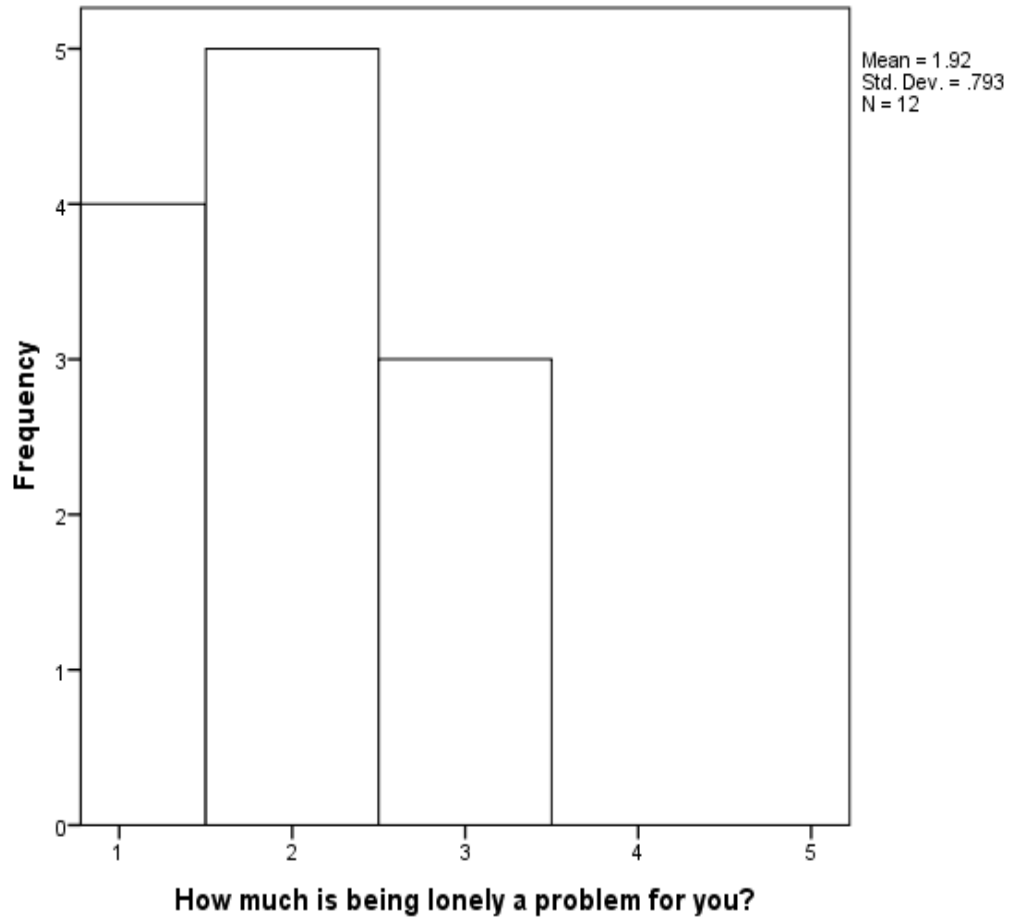


Table 10-“How often does your child feel lonely?”

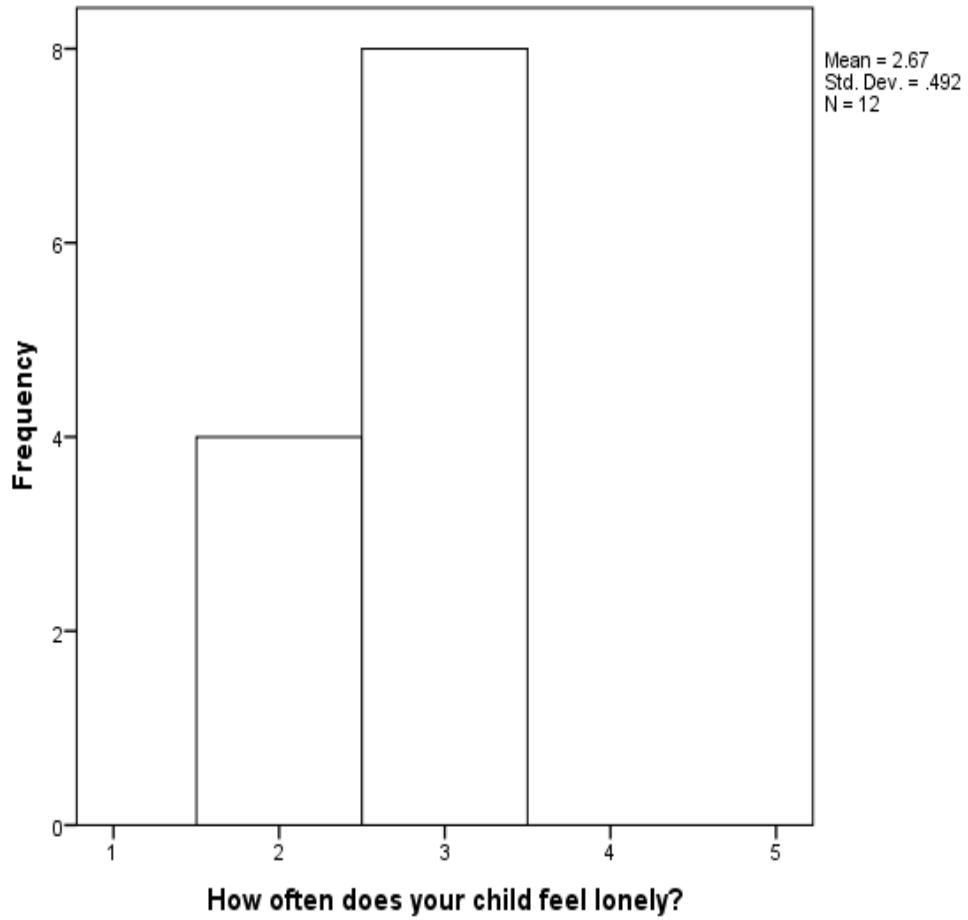


Table 11-“How much is being lonely a problem for your child?”

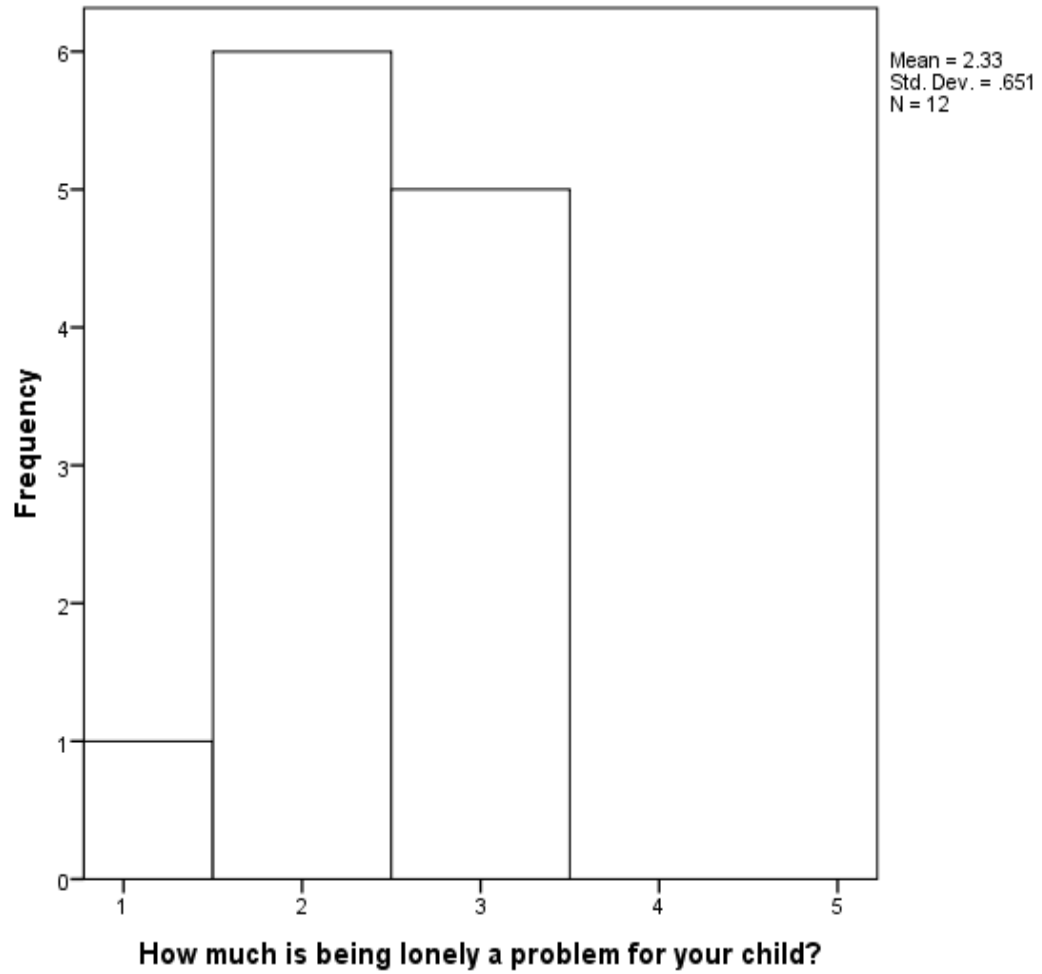


Table 12-Correlation Coefficients

Variables	1	2	3	4
1. Child-reported parent-child relationship quality	N/A	.54	-.62*	-.68*
2. Parent-reported parent-child relationship quality	.54	N/A	-.26	-.42
3. Child-reported child loneliness	-.62*	-.26	N/A	.58*
4. Parent-reported child loneliness	-.68*	-.42	.58*	N/A

Note. $N = 12$. * $p < .05$ level, two-tailed

Power Analysis and Sample Size. The G*Power 3.1 power analysis program (Faul, Erdfelder, & Lang, 2009) was used to determine the needed sample size for data analysis. An analysis suggested that a minimum sample size of 64 parent-child dyads was needed to detect significance with an alpha level of .05, power of .80 (Ellis, 2010), and effect size of .3 (Cohen, 1992). Due to recruitment difficulty, only 12 parent-child dyads were able to complete the quantitative phase of the study. Therefore, the significance of the statistical analyses was limited.

Furthermore, the child loneliness scale was divided into two categories based on scores from the child-reported LSDQ. The two categories were created by dividing the child-reported scores into halves. The categories represented: (a) low loneliness group (Child LSDQ = 21-32), and (b) high loneliness group (Child LSDQ = 35-46). In this sample, 50% of children ($n=6$) scored in the low loneliness range, and 50% of children ($n=6$) scored in the high loneliness range.

Statistical Analyses Addressing Research Hypotheses.

Hypothesis 1. The first hypothesis stated that there would be a significant negative correlation between the child-reported child loneliness level and the child-reported parent-child relationship quality. To examine the relationship between the child-reported child loneliness level (as measured by the Child LSDQ) and the child-reported parent-child relationship quality (as measured by the Child PCRQ Personal Relationship Subscale), a Pearson product-moment correlation coefficient was computed. There was a large, negative, and significant correlation between the two variables ($r = -.62$, $n = 12$, $p < .05$). As the scores on the child-reported parent-child relationship quality increased, the scores on the child-reported child loneliness level decreased. Hypothesis 1 was supported.

Differences in child loneliness levels were further explored to examine the correlation between the child-reported child loneliness level and the child-reported parent-child relationship quality. A strong, negative, and significant correlation between the two variables were found for children with low levels of loneliness ($r = -.94$, $n = 6$, $p < .01$). Among children who reported low levels of loneliness, as their scores on the parent-child relationship quality increased, their scores on the child loneliness level decreased. Contrastingly, no significant correlation between the two variables was found for children with high levels of loneliness. This suggests that for children who reported high levels of loneliness, their scores on the parent-child relationship quality and their scores on the child loneliness level were not related. No significant gender difference was found in this hypothesis.

Hypothesis 2. The second hypothesis stated that there would be a significant negative correlation between the parent-reported child loneliness level and the parent-reported parent-child relationship quality. To examine the relationship between parent-reported child loneliness level (as measured by the Parent LSDQ) and parent-reported parent-child relationship quality (as measured by the Parent PCRQ Personal Relationship Subscale), a Pearson product-moment correlation coefficient was computed. There was no significant correlation between the parent-reported child loneliness level and the parent-reported parent-child relationship quality. No significant gender difference or child loneliness for high and low levels was found in this hypothesis. In conclusion, Hypothesis 2 was not supported. However, there was a significant and negative correlation between the child-reported parent-child relationship quality and the parent-reported child loneliness level ($r = -.68$, $n = 6$, $p < .05$). As the scores on the child-reported parent-child relationship quality increased, the scores on the parent-reported child loneliness level decreased.

Hypothesis 3. The third hypothesis stated that there would be a significant positive correlation between the child-reported and the parent-reported child loneliness levels. To examine the relationship between the child-reported child loneliness level (as measured by the Child LSDQ) and the parent-reported child loneliness level (as measured by the Parent LSDQ), a Pearson product-moment correlation coefficient was computed. There was a large, positive, and significant correlation between the two variables ($r = .58$, $n = 12$, $p < .05$). As the scores on the child-reported child loneliness level increased, the scores on the parent-reported child loneliness level also increased. Hypothesis 3 was

supported. No significant gender difference or child loneliness for high and low levels was found in this hypothesis.

Hypothesis 4. The fourth hypothesis stated that there would be a significant positive correlation between the child-reported and the parent-reported parent-child relationship quality. To examine the relationship between the child-reported parent-child relationship quality (as measured by the Child PCRQ) and the parent-reported parent-child relationship quality (as measured by the Parent PCRQ), a Pearson product-moment correlation coefficient was computed. There was no significant correlation between the two variables.

Child gender differences in the correlation between the child-reported and the parent-reported parent-child relationship quality were further explored. A strong, positive, and significant correlation between the two variables was found for girls and their parents ($r = .97$, $n = 6$, $p < .01$). Among the mother-daughter dyads, as the scores on the child-reported parent-child relationship quality increased, the scores on the parent-reported parent-child relationship quality also increased. Contrastingly, no significant correlation between the two variables was found for the mother-son dyads. Therefore, hypothesis 4 was supported by the mother-daughter dyads but not by the mother-son dyads. No significant child loneliness for high and low levels was found in this hypothesis.

Additional Analyses. Additional Pearson product-moment correlations were used to compare parents' and children's perceptions of the child's loneliness. As a supplement to the ratings of loneliness participants provided on the LSDQ, children and parents were

also asked to rate the level of the child's loneliness and the degree to which loneliness is a problem on a Likert scale (1 = "Never lonely" and "Loneliness is never a problem," 5 = "Always lonely" and "Loneliness is always a problem") on their Demographic Questionnaires (See Appendix D).

There was a large, positive, and significant correlation between parents' and children's ratings on the Likert scale of how lonely the child is ($r = .60$, $n = 12$, $p < .05$). This suggests that when children's ratings on how lonely they were increased, the parents' ratings on how lonely their child was also increased. In contrast, there was no significant correlation between parents' and children's ratings on the Likert scale of how problematic loneliness is for the child. This suggests that parents and children disagreed on how problematic loneliness is for the child. It is possible that one child rated being lonely was not a problem at all, but the child's parent rated being lonely was very problematic for that child.

The correlation between children's ratings on how lonely they are and children's ratings on how problematic loneliness is for them was not significant. This suggests that the loneliness level was not related to how problematic loneliness is from children's perspective. It is possible that one child rated a high level of loneliness, but the same child also rated that being lonely was not a problem for him or her. However, a large, positive, and significant correlation was found between parents' ratings on their child loneliness level and parents' ratings of how problematic loneliness is for their child ($r = .65$, $n = 12$, $p < .05$). As the scores on parent's ratings of their child loneliness level

increased, the scores on parents' ratings of how problematic loneliness is for their child also increased.

Additionally, children's ratings of their own loneliness as measured by the item on the Demographic Questionnaire and the total score mean on the LSDQ were strongly correlated ($r = .77$, $n = 12$, $p < .01$). Parents' ratings of child loneliness as measured by the item on the Demographic Questionnaire and the total score mean on the LSDQ were also strongly correlated ($r = .78$, $n = 12$, $p < .01$). This suggests that LSDQ is valid in measuring child loneliness level from both children's and parents' perspectives in the current study.

Qualitative Phase

From 8 verbatim transcripts, I extracted 109 significant statements (53 for the low levels loneliness group and 56 for the high levels loneliness group). After extraction of all significant statements from eight transcripts, duplicate statements were eliminated. The remaining significant statements are presented in Tables of Friendships, Tables of Attitudes toward Mother, Tables of Attitudes toward School, and Tables of Loneliness Experiences. The significant statements from the low group are listed in Tables 13, 14, 15 and 16. The significant statements from the high group are listed in Tables 17, 18, 19 and 20.

Meanings were formulated from the significant statements. These meanings were derived by reading and reflecting upon the significant statements in the original transcripts. The aggregate of formulated meanings were organized into clusters of themes. These clusters represent themes that have emerged from and are common to at

least two children's descriptions. The cluster of the low group is presented in Table 21 (13 themes) and the cluster of the high group is presented in Table 22 (18 themes). These clusters were referred back to the original descriptions in order to validate them. Each description was examined to see if there was anything in the original transcript that was not accounted for and whether the cluster proposed something that was not original.

The exhaustive descriptions of the loneliness phenomenon were produced by the integration of the results of the analysis. The descriptions represent the essence of the phenomenon and include what the children experienced and how they experienced it. The exhaustive description of the low levels of loneliness and the exhaustive description of the high levels of loneliness are presented in the end of the finding section. This is a pilot study using qualitative approach to understand the loneliness phenomenon during middle childhood. The findings are limited due to its small sample size. Only four children (two boys and two girls) were included in each group. Future studies should include larger sample sizes and verify the preliminary findings of the current study.

Narrative of Low Levels Loneliness Group

Friendships. The children with low levels of loneliness reported that they had nice and smart friends whom they got along with. These friends helped them, stood up for them, and could be counted on. The children named two to five best friends, and Leo indicated that he had other friends, but his best friends were on the top of his list. The children liked their friends because they were nice, smart, and fun to play with. Mara said, "They always play whatever I want to play and I always play whatever they want to play." Adam said, "My three best friends have three different personalities: the outsider,

the insider, and the smart one.” They did a lot of things together including reading, writing, playing sports, going to the pool, helping each other with homework, and having play days. Leo was also invited to a camping trip birthday party by his friend, while Mara’s friends introduced new sports to her.

The children made friends through introducing themselves, asking what other children’s names were, and inviting other children to play with them. They also made friends through being nice to other children and asking whether they wanted to be friends. These strategies usually worked out. For example, Leo said:

If there’s a new person, just go over and say: “Hi, I’m Leo. What’s your name?” and somebody follows up: “My name is this. Hey, do you want to come play soccer with me?” “Sure” and we’ll play soccer day after day, and then they’ll say: “Hey, do you want to have a play day?” Eventually we just become really good friends. That’s what happened with one of my really good friend, Andrew.

The children did not have big fights with their friends but they did engage in small bickering. However, they were still friends after arguments and at no time were there, “I hate you, bye”. They agreed on what they could do after arguments. For example, Sarah shared:

We try to make posters for our class. Aiyana, she’s a really good student, but she also likes to take things in her own way. We were arguing [about] that. I felt like she just didn’t let anybody else participate, so I talked to her and we all agreed on which part we should each work on. It ended up pretty well.

Table 13-Friendship Significant Statements (Low Group)

Significant Statements	
1. Nice	13. Go over and say my name, ask
2. Get along well	what their name is, ask "do you
3. Play what I want to play	want to be friends", play with
4. Make fun jokes	them, play day after day, ask for
5. Have different personalities	play days, become good friends
6. Stand up for people	[Q: How to make friends?]
7. Can count on them	14. Friend take things in her way and
8. Best friends are top-list friends	does not let me participate. I talk
9. Spend a lot of time together	to her and it ends well.
10. Like to do a lot of stuff together	15. Friend gets on my nerves and I
11. Lots of play days	say "don't do that". We agree on
12. Help each other in class	what to do.
	16. Small bicker and no "I hate you,
	bye"

Attitudes toward Mother. The children with low levels of loneliness described their mothers as nice, funny, and cuddly. Their mothers were there for them and made their life happier and better. Mara specifically said "I love her". The children reported running errands with their mothers, such as getting groceries. They talked to each other and spent time together doing things including reading, eating, watching TV, and shopping. The also went to movies, Starbucks, Elitches Gardens, and the Renaissance Fair. Leo's mother liked to buy small, nice things for him, and Mara's mother liked to sing to help her fall asleep. Sarah enjoyed helping her mother by making her a fund-raiser box. She liked her mother because "She's really forgiving when me and my sister do bad things." Their mother also helped them to reconcile. Sarah recalled, "If I get in trouble with my sister, my mother makes sure we give each other a hug and say "I forgive you".

She says it's very important to do that so you don't have to learn the hard way because she said she had to learn the hard way."

When the children had arguments with their friends, their mothers stood up for them by reaching out to other children's parents, giving children advice on what to do to solve problems, and offering emotional support to make sure the children's feelings were not hurt. For example, Sarah discussed what happened with Aiyana to her mother:

The scenario where my friend, Aiyana, tries to just do things by herself, I told my mom about it and she gave me advice. She said: "Talk to her about how everybody should have a part in the project because you all gonna get a grade on it for participation.

Sarah followed the advice and they worked it out. Another example was when Mara got into a fight with her friend and Mara's mother talked to the friend's parents, "Your child is acting mean to my daughter. Can you please tell him to stop? It's really hurting her feelings." Leo shared a similar story. He specifically said, "She won't go over there and yell at other parents, just email them nicely, 'Hey, can you help your child with this?'"

When asked what the children wished their mothers would do more for them, Mara said she wished her mother could stay home more so that they could get a dog. Leo and Adam couldn't think of anything, and Sarah said her mother had already done a lot for her.

Table 14-Attitudes toward Mother Significant Statements (Low Group)

Significant Statements	
1. Nice	10. Stand up for me
2. Forgiving	11. Come over to me
3. Make my life happier and better	12. Support me
4. Do a lot of things for me	12. Understand me
5. Do a lot of things together	13. Help me out
6. Teach me how to practice forgiveness	14. Reach out to my friend's parent nicely when I argue with friend
7. Enjoy helping her	15. There's nothing I wish my mom to do more for me
8. Make sure I'm not hurt	
9. Give me advice and problems with friends end well	

Attitudes toward School. The children with low levels of loneliness described school as both fun and boring. Adam and Leo said, “It was fun to learn.” Sarah said, “Sometimes it’s not so fun because it’s too easy or there are too many tests.” The children reported 4 to 5 out of 5 when asked how much they liked school. It used to be a 2 for Mara but now was a 5. She explained:

Last year was just harder for me because I couldn’t do multiplication and everyone else in my grade could. It was really challenging for me, and I couldn’t focus much, but now I can focus better, and I’m better at it. I think it’s just easier for me and I like it more.

Adam liked school because, “It makes you feel confident when you learn new things.” The children liked school because it offered different classes that they liked and they had good teachers. Leo and Sarah liked school because it was a socially inclusive environment. Sarah said, “I really like my school because it makes sure all different types

of cultures are validated, and it validates people, too.” Leo said, “There’s no group. Everybody’s friends and everybody does everything together.”

Adam and Mara did not like school sometimes because they found certain classes hard, and Sarah did not like school sometimes because events were not organized. Leo said there was nothing he did not like about his school. Adam would like to have more support with hard classes and Sarah would like to have better substitute teachers. Leo and Mara said there was nothing they wished their school to do more for them. The children missed school because they were sick such as coughing, throwing up, and fever. Other reasons for missing school included allergies, going to a wedding party with parents, and doctor appointments. They would miss school once to a few times per year. Most children stated they didn’t want to miss school. For example, Sarah said, “Except my allergy season, otherwise I go to school regardless, because I don’t want to miss anything.” Mara said, “Sometimes I wonder what other people are doing. I’m like what if they’re at reading time? What if they’re at writing time? I don’t want to miss this.”

Table 15-Attitudes toward School Significant Statements (Low Group)

Significant Statements	
1. Fun and boring	11. Miss school because of allergy
2. Welcoming	12. Miss school a few times a year
3. Learn new things and make me feel confident	13. Don't want to miss school
4. Miss school and friends	14. Don't want to miss anything
5. Math used to be challenging but I'm better at it	15. When I miss school, I wonder what other people are doing
6. Like to see my friends at school	16. I used to think going to school was waste of my time but I don't think like that anymore
7. Good teachers make class fun	17. Hope school help me with classes
8. Validate culture and people	18. Hope school to bring in better substitute teachers
9. Everybody's friend	
10. Everybody does everything	

Loneliness Experiences. The children with low levels of loneliness explained the meanings of loneliness as “without friends, no one to play with me and no one wants to play with me”. They discussed this in the context of social exclusion. For example, Mara said, “When my brother and my sister sometimes exclude me, they kick me out of their games, so I’m like I still have my books but I’m lonely.” Additionally, they explained loneliness as “feelings are down” and an emotional state – “no one can comfort me, no one understands me, and there is no one being there for me.” Leo also associated loneliness with “having nothing to do since everybody’s doing something else.” The children in this group responded 1 to 2 out of 5 when asked how much they felt lonely.

The children would look for friends or making new friends when they felt lonely. Leo would also ask teachers for help if he was excluded by other children at school. He said he would go to his teacher and say, “Can you help me? This person is excluding me. I think it’s a little rude.” He said the teacher would go over and talk to the person who

excluded the child. Additionally, the children reported using self-entertaining activities to help them feel better including reading, drawing, ripping paper, and watching videos.

Adam said when he felt lonely he would choose to play alone somewhere surrounded by other people. He said, “If there’s a person, it kinds of makes me feel I’m there and comforted by them.”

The children would go to their parents, siblings, friends, and teachers when they felt lonely. Although Leo and Sarah reported siblings being supportive when they felt lonely, Adam and Mara reported siblings excluding them from playing games or occupying their parents all the time, which exacerbated their loneliness experiences. For example, Mara said, “My brother and sister are growing up. Now they don’t really want to play all the game I want to play, like chess. Both Spencer and I want to, but Sam I don’t think so.” Adam said, “I usually go to my dad when I feel lonely, because my mom is either at work, at school, or my brother doesn’t want me to have her. He hogs her a lot and doesn’t want anyone to touch her.” Mara would also go to her stuffed animals when she felt lonely.

Table 16-Loneliness Significant Statements (Low Group)

Significant Statements	
1. Feeling down, without friends, no one to play with, no one can comfort you, no one understand you, excluded by other children, have nothing to do while everybody is doing something an emotional state, feel left out when no one to play with, not feel lonely if friends next to me [Q: What does loneliness mean]	2. Find friends to play with, make new friends, ask teacher for help if excluded, reading, drawing, rip paper, watch videos, play games around other people [Q: How to cope with loneliness]
	3. Siblings exclude me from their games and that makes me feel lonely
	4. Siblings occupy mom a lot and can't go to mom when feeling lonely

Narrative of High Levels of Loneliness Group

Friendships. The children with high levels of loneliness shared different things about their friends. Branden played sports with his best friends, and he liked them because at least one of them played with him during every recess. Andrea claimed she had “lots of” best friends, and if she had a friend, she had to call this friend “a best friend”. She recalled that one time she was picked on by two boys and her friend, Avery, went after the boys, even though she told Avery that she could handle it herself. However, Avery said, “I don’t want my best friend being picked on. I think I can do this.” Andrea liked her friends because they all had different personalities and ages. Emma said, “A lot of my friends are turning on me.” She had one best friend, Sam, because, “Sam was loyal and had always been a good friend.” Jake didn’t tell me much about his friends at school and it was unclear whether he had any friends. He often said “not so much” during our conversation. Nevertheless, he did share with me that he was a

friend with his neighbor, Eva, and that he liked Eva because she was a girl. They played together and it was very fun. He felt very sad when Eva moved away with her family.

Except Andrea, all the other children indicated they had zero to two best friends, and Andrea claimed she had eight best friends, counting back to when she was five, even though some of them didn't live in the same city anymore. The children and their friends sat together at lunch, played sports, talked about games, made slide shows and videos, and went on hikes with parents. They also had play days. Andrea stated, "I'm really sad because Amy promised me she'll ask my mom for play days, but I haven't had a play day with her all year ever."

When asked how to make friends, Jake and Emma were not sure. Jake said, "I don't know" and Emma recalled, "We were put in the same class. I don't really remember because it was years ago." In terms of other children, Andrea usually waited to be approached by other children, "Sometimes when I'm first at a place, when I'm lonely, I don't have any friends yet, I usually just stay by myself", and only occasionally she would approach others first. She said, "If nobody comes up to me, I will go and say 'Hi, I'm Andrea. What's your name?' and then we start a conversation until it gets really interesting, and I ask 'Will you be my friends?' They usually say yes". Branden told me, "By me starting to be best friend with Evan, and since Evan's best friend is Luke, Luke became my best friend." He also made friends by playing with them, "I find people that I might want to be friends with. I see something that they're playing is fun, and I ask them if I can join them."

All the children had fights with their friends. Branden was the exception, however; he claimed they were no longer friends while all the other children said they were still friends after fights. Both Andrea and Emma described ups and downs in their relationships with some of their friends. Andrea said:

When we're together in a group, our relationship is thumbs down. When we're alone, it is thumbs up, so eventually we just have as many play days as possible and connect back together, but then back at school, break apart. My friend, Avery, calls this "yo-yo friendship".

Emma shared similar story, "We're fine if it's just two of us, like play days. We usually fight when other people are around for some reason."

Table 17-Friendship Significant Statements (High Group)

Significant Statements	
1. Have to call all friends best friends	15. Stay by myself, wait for other to come to me; become new friends through existing friends; find people I want to be friends with and ask to join to play; say my name, ask their names, make conversation interesting and ask "will you be my friend"; don't know; don't remember
2. Have different personalities	
3. Play with me during recess	
4. Chase away boys who pick on me	
5. Best friends are loyal	
6. Friends are turning on me	
7. Some friends make school not fun	
8. A friend always steals another friend	
9. Some good friends won't be with me but some bad friends will be with me next year	[Q: How to make friends?]
10. Sad because friend has move away	16. Fight elevates day after day
11. Sad because friend did not ask to have play days with me	17. Have a lot of bad things with a friend
12. Not friends anymore	18. Get really cranky at one friend
13. Still mad at friends but still friends	19. Have a lot of break apart but come back together
14. Fight over small things everyday	20: Yo-yo friend: friendship is bad in a group but it is good if it's just two of us
	21: Not counted on my scale but get together sometimes

Attitudes toward Mother. The children with high levels of loneliness shared information about their mothers. Branden said his mother was nice and fun. Andrea’s mother was a lawyer and worked part-time so she could spend more time with her children. Emma stated that her mother took away some of her things and just gave some of them back. Jake and his mother both liked plants. The children and their mothers spent time together doing things including grocery shopping, getting ice-cream, and playing games. Branden found doing things with his mother boring. He said, “There’s stuff we do together but it’s kind of boring, like shopping, boring.” Emma’s mother made her do things she didn’t want to do, for example, she said, “My mom made me go to the pool but

I want to stay home and craft.” Jake reported he didn’t do much with his mother. The children liked their mothers for different reasons. Branden liked his mother because she was fun. He said, “Is she fun? Yeah, she’s fun.” Jake liked his mother because she turned on TV for him and allowed him to sleep in her bed. Andrea liked her mother because she had a flexible work schedule and did not hand out too much punishment. Emma liked her mother because, “She supported me through my friendship problems.”

When the children had fights with their friends, some parents seemed to be more involved than others. Branden just figured it out with his friend, and he couldn’t remember if he told his mother. If he did, he couldn’t recall if his mother said anything, “Not a word, not a letter”. Jake kept saying “I’m very sad when Eva moved away”, but did not share with me what his mother did or did not when he got into fights with Eva. He only said, “Wish my mom could bring Eva back.” Emma said, “She supports me through my friendship problems. She talks to my friends’ parents. She also allows me to do things she normally wouldn’t let me to, like to have more screen time.” Andrea’s mother would offer emotional support, “It’s okay. We will get over it somehow.” When asked what they wished their mom would do more for them, Branden would like to have unlimited computer time; Andrea would like her mother to buy her new toys every day without spending money; Emma would like to be allowed to do whatever she wanted; and Jake would like his mother to bring Eva back. Andrea also wished that, “When my mom asks my friends to be nice to me, they’ll say ‘Yes, Andrea’s mom’ and do it, but they usually just say ‘Yes, Andrea’s mom’ and don’t do it.”

Table 18-Attitudes toward Mother Significant Statements (High Group)

Significant Statements	
1. Nice and fun	12. Allow more screen time when I fight with my friends
2. Has flexible schedule	13. Did not say a word when I fight with my friends
3. Not throw too much punishment	14. Encourage me and tell me "it's okay" when I fight with my friends
4. Try to spend more time with us by working from home	15. Wish friends could listen to my mom and be nice to me
5. Work a lot at the end of the month	16. Wish mom bring back friend who moved away
6. Do boring things with my mom	17. Wish mom allow me to stay on computer as long as I want
7. Take away my things	18. Wish mom let me do whatever I want
8. Make me do things I don't want to	19. Wish mom buy me a lot of toys without spending money
9. Don't do much together	
10. Support me through friend problems	
11. Talk to my friend's parent when I fight with my friends	

Attitudes toward School. The children with high levels of loneliness found school both fun and boring. Andrea said it used to be boring because she wasn't challenged enough in class. She said, "Now I'm actually challenged and I'm really happy for that." Emma felt that school was both fun and not so fun because one friend was being mean to her. All the children reported 4 out of 5 when asked how much they liked school. They liked school because it had enrichment classes and offered different learning programs Emma liked her school because she thought it gave everyone equal opportunity to be a school leader and she said, "It's super fair." Jake liked his school because he could play games over there, but he also said "the games you had to play".

Emma and Andrea did not like school sometimes because the teachers they were connected to left. They said, “I don’t like it when you just get connected to your teachers and they sent them away. I really don’t like how teachers keep moving on to different jobs. I was really sad because I had to say goodbye to my teacher.” Branden did not like doing projects with the children he didn’t trust. He disclosed, “I see some kids that are in my group and sometimes they don’t do a very good job, so I don’t trust them to be in my group.” He also complained that sometimes class was too easy. He liked doing math at higher grade levels in enrichment.

All the children except Jake reported they had headache and stomach ache at least once a year. Jake reported being sick once a week, but everyone else in the group was sick a few times a year. Jake claimed he would get sick if he stayed at school for too long. Other children also missed school because of flu and fever. When asked what they wished school would do more for them, Jake wished school was not too long; Andrea wish school could help her with hearing disabilities; and Emma wished school could offer individual music classes. Branden did not share anything with me on this topic.

Table 19-Attitudes toward School Significant Statements (High Group)

Significant Statements	
1. Fun and boring	7. Need friends to help with group project
2. Challenging and I'm happy I can learn in that way	8. Not trust some friends because they don't do a good job
3. Enjoy doing math at higher grade levels	9. Connect to teachers and see them leaving makes me sad
4. Have different learning programs for different students	10. Staying at school too long makes me sick
5. Have equal opportunities for students to be a leader	11. Wish school is not too long
6. Trust friends sometimes but not other times in group project	12. Miss school once a week because of headache and stomach ache

Loneliness Experiences. When asked what loneliness meant, the children with high loneliness levels explained it as “without friends, no one to talk to, and no one to play with.” Andrea shared with me she often stayed in her room all alone when she felt lonely. Emma and Branden reported feeling lonely at recess because their friends excluded them and they had nothing to do. For example, Emma recalled, “It reminds me of this one time at recess. I was playing with my friends, and then Olivia was being mean to me, so I just quitted their group. I was just sitting on the playground most of the time.” Branden disclosed, “I feel lonely sometimes during recess.” Jake also said, “I don’t know what it means, but it reminds me sometimes I wish I don’t have to go to school.” The children reported 3 to 5 out of 5 when asked how much they felt lonely.

In terms of coping with loneliness experiences, Branden would look for someone to play with and likely could find someone. Jake would play with his pets and Andrea would play with her imaginary friends when they felt lonely. Additionally, they discussed

using self-entertaining strategies such as reading and watching a movie to cope with loneliness. Emma didn't know what to do when she felt lonely and just sat there. The children would go to their mothers and friends when they felt lonely. Jake would go to neither but to his grandmother who did not live with him. Andrea discussed how she approached school psychologists when she felt lonely. She described:

They're supposed to help me with my problems with feelings. Sometimes they're helpful but I really wish that they could help me earlier, because to get their signal that I need help with something, you have a chat sheet and you described what your problem is. Even if I put 911 emergencies, they don't come until next Thursday or sometimes they don't even come at all.

When comparing her mother with her friends, Andrea felt closer to her mother; Emma felt closer to her friends; and Jake felt close to neither but felt close to his grandmother. Branden felt equally close to both. He said, "Right now I feel closer to my mom. Sometimes I feel closer to my friends, like when I play tetherball and soccer."

Table 20-Loneliness Significant Statements (High Group)

Significant Statements	
1. Without friends, no one to talk to, no one to play with, be in your room alone, feel lonely at recess, friends being mean, have to quit their group, have nothing to do but sitting there, wish don't have to go to school [Q: What does loneliness mean?]	3. Look for someone to play with, play with imaginary friends, play with pets, reading, watching a movie, sit there, don't know what to do [Q: How to cope with loneliness?]
2. Feel closer to mom at home and feel closer to friends at school	4. Go to school psychologists when lonely and sometimes they're helpful. Wish they can help me earlier because sometimes they don't attend to me until much later or not at all.

Formulated Meanings of Low Levels of Loneliness Group

These children's friends are pleasant to be around: they are supportive and caring especially when children need help. They spend a lot of quality time together doing various fun things. They also help and learn from each other academically. Children come up with strategies to make friends including: making self-introduction, asking other people's names, playing with them, playing day after day until someone asking for play days, and eventually becoming really good friends. They may also ask "Do you want to be friends?", but most of the time, their friendships form organically. Children occasionally argue with their friends but these arguments are not big fights. They resolve the problems by talking to their friends and they stay friends.

Children enjoy their mothers' companionship. Mothers not only take good care of children in daily life, but also guide them about how to deliver kindness. They spend time doing things together. Not only do mothers enjoy helping their children, the children also enjoy helping their mothers. Most of children do not wish that their mothers would do

more for them because they believe their mothers have already done a lot. They support children going through their friendship problems. When children argue with their friends, they tell their mothers who will listen and give advice. Children follow the advice and their problems are resolved. Sometimes mothers also advocate for their children by reaching out to other parents. They try to stop other children being mean to their own children and protect their feelings from being hurt.

When children gain new knowledge at school, they feel proud of themselves. Some teachers are especially good at motivating students in this process and subsequently increase their interests in school subjects. This makes them like these teachers' classes more than others. Children like school because they see their friends. Knowing that their friends will be there for them motivates them to go to school. When children are not at school, such as during summer, they sometimes miss their friends. They also like school because it has a socially inclusive environment which makes them feel welcomed, respected, and valued. Children sometimes miss school due to illness, but they don't want to miss school because they believe school is worth their time. They find school work challenging sometimes, and they may benefit from extra support, such as tutoring and having better teachers for certain classes.

Children explain the meaning of loneliness beyond just a type of feeling. Although they say it is an emotional state when they feel sad, they also point out a sense of emptiness – there is no one around them to offer emotional support when they need it. This sense of emptiness happens when they are excluded by other children or their siblings, and they end up having nothing to do but seeing other people doing fun things.

Some siblings are not supportive when children are feeling lonely. The siblings cause children to feel lonely by excluding them from games. The siblings also exacerbate children's loneliness by occupying children's comfort figures. Children use two major categories of strategies to cope with loneliness: reaching out to people and self-entertaining activities. For the first category, children go find friends to play with or make new friends when they feel lonely. Some children may even go ask teacher for help if they are excluded by other children. For the second category, children read or draw when they feel lonely. Children use both categories of strategies. Some use seeking out others as their primary strategy and others only use self-entertaining strategy to change their mood. A third, more minor kind of strategy involves playing alone around other people in which despite the lack of direct interaction, children may still feel comforted by the presence of other people.

Table 21-Clusters of Common Themes (Low Group)

Common Themes
<p>Friendships</p> <ol style="list-style-type: none">1. Friends are helpful and they like spending time to do a lot of fun things.2. They take the initiatives to approach others when making friends.3. Although they argue, they problem solve and stay good friends.
<p>Attitudes toward Mother</p> <ol style="list-style-type: none">1. Mothers are caring and they spend a lot of time doing various activities.2. Mothers are supportive when they go through friendship problems. Mothers listen, give advice, and advocate for children by reaching out to other parents.3. There's nothing they wish their mothers to do more for them.4. They all feel closer to their mothers compared to their friends.
<p>Attitudes toward School</p> <ol style="list-style-type: none">1. Children like school because they enjoy learning and get to see their friends. They feel being valued in a socially inclusive environment.2. They don't want to miss school because they don't want to miss anything.
<p>Loneliness Experiences</p> <ol style="list-style-type: none">1. Loneliness means without friends and is related to social exclusion. If children can't find emotional support from other people, they will feel lonely.2. They reach out to their friends and entertain themselves to cope with loneliness.3. They go to parents, siblings, friends, and teachers when they feel lonely.4. Siblings play a double role in children's loneliness experiences - they may protect children from feeling lonely, but they may also cause children to feel lonely.

Formulated meanings of High Levels of Loneliness Group

Children have some positive feelings toward their friends. Their friends stand up for them when they are picked on by other children and spend time together and do some fun things. However, some children seem to believe all their friends are best friends. They also have negative feelings toward some of their friends and feel hurt and troubled when they do not get along with them. They may also feel sad and jealous when they

don't always get to choose to hang out with whom they want the most. Children use three strategies in making friends. First, they become friends with new people through their existing friends. Second, they stay by themselves and wait for others to approach them. Third, they take initiatives including self-introduction, asking what other children's names are, talking to them, being nice to them, and playing with them, and asking "Do you want to be friends?" They don't seem to prioritize strategies. Some children also say they don't know how to make friends or they don't remember how they become friends with other children. Most of children have dramatic fights with their friends. Some children are no longer friends with other children. Some children choose to stay in the relationships with their "yo-yo" friends. Their friendships vacillate as they break apart and come back together. When they fight, perhaps their anger becomes stronger and stronger, which eventually breaks them apart. However, their friendships problems may start ameliorating once they hang out again individually during play days.

Children have some positive feelings toward their mothers. They seem to enjoy spending time together. Although one child reports not doing much with his mother, most children do a few things with their mothers. They also have some negative feelings toward their mothers as they feel like their mothers coerce them to do things they don't want to. Some children choose to share their friendship problems with their mothers while others don't. When they share, their mothers encourage them through providing emotional support. Some mothers will also reach out to other children's parents when their children had friendship problems while others won't. Some children don't remember if they tell their mothers about what happens between friends or what their

mothers say back to them. They don't seem to perceive their mothers being supportive when they fight with their friends. Instead, they prefer to figure out with their friends or defriend with others. Children disclose unrealistic wishes about their mothers but the things they wish their mothers would do for them are beyond their mothers' control.

Most children like school. Many children talk about how they like being challenged and learn better. They also like school because it has enjoyable learning program that provide opportunities to develop socially and academically. One child has trust issues with his friends when it comes to group projects: perhaps he wishes his friends could be more committed to their work so that he could trust them more. Some children are closely connected to their teachers and feel sad when they leave their positions. Although all children have headaches and stomach aches, some have these complaints much more frequently than others. One child doesn't seem to like his school at all and wishes he doesn't have to go to school sometimes.

Besides the basic characteristics of loneliness – no friends, no one to talk to, and no one to play with, children talk about examples at recess which causes them to feel lonely. These include, being excluded by friends, having nothing to do, and seeing other people doing fun things. One child says loneliness reminds him of the feeling he has when he wishes he didn't have to go to school. Some children have strategies to cope with loneliness while others do not. Some children tend to use one kind of strategy and other children like to use different strategies. Few will go look for someone to play with. Some children will play with non-human figures such as pets; others will choose self-entertaining strategies such as reading, while others don't know what to do. Some

children talk about how they use services provided by school psychologists with whom they connected and find some relief by talking to them. But they also hope to get their attention sooner and receive help in a more consistent and effective manner.

Table 22-Clusters of Common Themes (High Group)

Table 1.10. Clusters of Common Themes - High Loneliness Group

Friendships

1. Children have mixed feelings toward their friends. Some friends are nice. Some friends are often mean, which hurts children's feelings.
2. They spend some time together with their friends and do a few fun things.
3. They feel sad when they can't hang out with the friends they like the most.
4. Some children know how to make friends. Some don't. They make friends both proactively and passively (i.e., wait to be approached)
5. When they fight, they tend to defriend or get into "yo-yo" friendships.

Attitudes toward Mother

1. Children have mixed feelings toward their mothers. Although they like their mothers, they also don't like their mothers to coerce them to do things.
2. They may or may not enjoy doing things together with their mothers.
3. Some children choose to share their friendship problems with their mothers and the mothers reach out to other parents and offer emotional support.
4. They have unrealistic expectation about what they wish their mothers to do.
5. They don't always feel close to their mothers or their friends.

Attitudes toward School

1. Children like being challenged because they believe they can learn that way.
2. They are connected with teachers and they feel sad seeing them leave school.
3. They have trusting issues with their friends both socially and academically.
4. Some children have much more frequent somatic complaints and show more dislike toward school than others.

Loneliness Experiences

1. Children give specific examples in explaining loneliness. It happens during recess and is caused by social exclusion by their friends.
 2. Some children know how to cope with loneliness. Few children approach other people when they feel lonely. Most children choose to entertain themselves or approach non-human figures.
 3. They go to mothers, friends, and school psychologists when they feel lonely.
 4. They sometimes find school psychologists helpful and sometimes they don't.
-

Exhaustive Descriptions of Loneliness Groups

Low Levels of Loneliness Group. Children in this group feel lonely if they have no people, particularly friends, to turn to when they want to connect to others and obtain emotional support. The feelings of loneliness happen both at school and at home. At school, children experience it on the playground during recess when their peers reject them from playing together. When this happens, children actively seek out additional support to help them reconcile with the feeling of loneliness. They find other friends, make new friends, and ask teachers for help. Because children in this group have consistent and effective strategies for how to approach other people when making friends, these strategies help them ameliorate the feeling of loneliness. Additionally, some children perceive their school as offering a socially inclusive environment; this may help them feel safer to reach out to people for support. Social inclusion may also enhance children's positive attitudes toward school, motivate them to engage in school activities, and increase their self-efficacy.

At home, children experience loneliness during interactions with their siblings, when their siblings exclude them from games or occupy their comfort figures which are often mothers. When this happens, children tend to go to their parents for emotional comfort. If mothers are not available, children go to their fathers. Positive parent-child relationships not only protect children from feeling lonely at home, but also serve as extra support when children fight with their friends. Parents convey emotional support through active listening, helping children problem solve, and protecting their feelings and rights. Additionally, since friends are usually not accessible if children are at home, they use

self-entertainment such as drawing and reading as the primary strategy to help them cope with feelings of loneliness. However, not all sibling relationships cause or exacerbate children's loneliness experiences; some instead can have protective effect, depending on whether the sibling relationship is cooperative or hostile.

High Levels of Loneliness Group. Children come up with specific examples in explaining loneliness. Loneliness happens during recess and children recall incidences in the past when they were excluded by their friends or were not able to find any friends to play with. This feeling makes some children not want to go to school. Loneliness also happens at home. When they do not have anyone to play with or talk to, they stay in their rooms all alone. It is unclear what makes children feel lonely at home, since none of them talk about being excluded by their siblings. When they feel lonely, they don't tend to approach other people, such as parents or friends, to ameliorate their feeling of loneliness. Only one child chooses this strategy. Instead, others are more likely to approach a non-human figure, such as pets, to help them cope with loneliness. Additionally, many children tend to use self-entertainment as the primary or only strategy to help them restore psychological balance in this process.

Children in this group do not have a consistent strategy to make friends. They rarely initiate contact with other children, although when they do, it seems to work out. They often stay quietly by themselves and wait for other to approach them, which may or may not work out. Some children don't have a strategy to make friends. The lack of strategy and low success rate in making friends may be directly related to children's feeling of loneliness and how they cope with loneliness. Additionally, children often get

into dramatic fights with their friends, and the lack of stability in their friendships breaches their trust with their friends. This may be why these children don't always go to their friends when they feel lonely.

Children in this group also don't seem to be emotionally close to their mothers, although they aren't necessarily close to their friends either. When they feel lonely, they don't always go to their parents. They don't always talk about their friendship problems with their parents either. Overall, they don't firmly perceive their parents as comfort figures. The lack of intimacy between children and their parents may be a reason why these children have higher levels of loneliness. Even when they share their friendship problems with their parents, what the parents offer may not be considered enough to protect children's feelings from being hurt.

Several children like school because they enjoy being challenged and learning at the same time. These children seem to be smart as they often enjoy learning at higher grade levels in enrichment or special programs. Perhaps their academic talent and intellectual development set them apart from their peers, and this creates difficulty for them to connect with their peers socially and emotionally. Although they don't necessarily connect well with their peers, some children have strong connections with their teachers and school psychologists. The children trust them and feel sad when they leave school. Perhaps the children with higher levels of loneliness are more likely to perceive school professionals as comfort figures. Additionally, somatic complaints, loneliness, and dislike for school seem to be intertwined. More dislike for school appears to be associated with more feeling of loneliness, somatic complaints, and school absence.

Chapter Summary

This chapter provided quantitative results and qualitative findings. The quantitative results included the preliminary analyses, primary analyses, and additional analyses conducted for this study. The presentation of the primary analyses included results from statistical tests performed to address the four research hypotheses. The relationship between child loneliness and parent-child relationship was explored from both child and parent perspectives. Correlation coefficients showed that higher levels of child-reported child loneliness were associated with lower levels of child-reported parent-child relationship. However, parent-reported child loneliness was not associated with parent-reported parent-child relationship. In addition, a significant correlation was found between the child-reported and parent-reported child loneliness level. There was substantial agreement between parents and children regarding how lonely the child is but not how much of a problem loneliness is for the child. In general, although not significant, parents are more likely to consider being lonely problematic compared to children. Gender did not have a significant effect in reporting child loneliness, but girls reported significantly higher levels of parent-child relationship than boys.

This chapter also provided the qualitative findings. The analyses included extracting significant statements, formulating meanings, clustering meanings into common themes, and developing exhaustive descriptions for children in low and high levels loneliness groups. The children in two groups appeared to show some differences in their friendship patterns, mother-child relationship styles, and coping strategies with

loneliness experiences. The next chapter expands on both the quantitative results and qualitative findings and considers their implications.

Chapter Four: Discussion

This chapter includes a brief summary of the study, a discussion of the overall findings related to the quantitative and qualitative phases, and their implications. The limitations of the study, recommendations for future research, and conclusions are also included.

Summary of the Study

Past research has demonstrated that child loneliness is an important phenomenon to study because it can cause both short-term and long-term problems (Hawkley & Cacioppo, 2010; Lohre et al., 2012). Studies have shown associations between child loneliness and many adjustment problems including social anxiety, peer rejection, and poor school liking (Betts & Stiller, 2014; Hawkley & Cacioppo, 2010; Laine et al., 2010). However, there are noticeable gaps in the understanding of child loneliness that necessitate continued investigation. Due to mounting research studies focusing on quantitative methods in measuring child loneliness, interest is growing in exploring this phenomenon from a qualitative perspective. Some research has examined the meanings of loneliness (Liepins & Cline, 2011) and coping with loneliness (Besevegis & Galanaki, 2010) during early, middle, and late childhood using interviewing method. Yet, the impact of different social factors, such as peer relationships, family relationships, and school environment in children with different levels of loneliness has not been addressed.

The main purpose of the study was to deepen the knowledge about how loneliness is experienced in middle childhood and to begin exploring the impact of the parent-child relationship on lonely children's well-being during this developmental period. More specifically, this study explored associations between child-reported child loneliness, parent-reported child loneliness, child-reported parent-child relationship, and parent-reported parent-child relationship. This study also explored how children with different levels of loneliness varied in terms of their friendships, parent-child relationships, attitudes toward school, and loneliness experiences.

Specific Findings and Implications of the Study

This study was the first known to explore the phenomenon of child loneliness during middle childhood (i.e., seven to ten years old) from both children and parents' perspectives utilizing mixed methods of surveys and interviews. There are several intriguing findings in this study. However, due to small sample sizes of the quantitative and the qualitative phases, the interpretations are tentative. Future research should include larger sample size to verify these findings. The current study makes important contributions to the understanding of loneliness during middle childhood in several areas described in detail below.

Parent-Child Relationship and Child Loneliness

There are some important factors to consider that may explain the association between parent-child relationship and child loneliness in the current study and previous research. Consistent with the study conducted by Richaud de Minzi (2006), the current study also found a significant and negative correlation between the child-reported child

loneliness level and the child-reported parent-child relationship quality (Hypothesis 1). Children who reported lower quality of parent-child relationship were more likely to experience higher levels of loneliness. Previous studies (Antognoli-Toland, 2001; Vitaro et al., 1995) largely focused on investigating parent-child relationship during late childhood and adolescence. The current study extended the similar finding to middle childhood.

The qualitative phase may help to explain how parent-child relationships were different from the children's perspectives in the groups of low and high levels of loneliness. During the child interviews, several children with high levels of loneliness reported having mixed feelings toward their mothers and doing less activities with their mothers compared to the children with low levels of loneliness. Antognoli-Toland (2001) found that lonely children had lower connection with their parents, engaged in fewer parent-related activities, and experienced less parental presence at critical times compared to non-lonely children. The child interviews provided more in-depth information to add to the quantitative results by giving specific examples that might highlight the differences in parent-child relationship patterns.

Follow-up analyses showed that the correlation between the child-reported child loneliness level and the child-reported parent-child relationship quality was only significant in children with low levels of loneliness. No significant correlation between the two variables was found for children with high levels of loneliness. Literature does not address this, as most research studies did not examine children with different levels of loneliness. Child interviews may provide additional insight in explaining this finding.

Compared to children with low levels of loneliness, children with high levels of loneliness did not always perceive their parents as comfort figures when they felt lonely or when they argued with their friends. A few of the children with high reported loneliness reported that they did not go to their parents when they felt lonely or talk to their parents about their friendship problems. For those children who did go to their parents, it was not clear whether they received sufficient support during these critical time periods. It is possible that children with high levels of loneliness did not perceive the parent-child relationship as being supportive in reducing their loneliness and peer problems. Future research should investigate who children perceive as comfort figures for those with high levels of loneliness, since identifying comfort figures is likely to help develop successful interventions.

Parents did seem to be aware of their children's loneliness levels, even when they were seen by the child as not having a positive relationship. There was a significant and positive correlation between the child-reported and the parent-reported child loneliness levels (Hypothesis 3). When the child-reported child loneliness scores increased, the parent-reported child loneliness scores also increased. Parental perceptions on child loneliness during middle childhood have not been frequently examined in the literature, but this does not mean that parental perception is no longer important during middle childhood. Parental perceptions of child feelings plays a vital role in understanding child social emotional development, and a mismatch between the child and the parent perceptions may cause a lack of mutual understanding and hinder the development of intimacy in a parent-child relationship. The current study suggests that parents were

aware of their children's loneliness levels. However, parental awareness by itself does not seem to be sufficient in protecting children from feeling lonely. Perhaps it is the parental intervention that is the key to supporting their lonely child. Future research should examine the impact of both awareness and intervention in reducing child loneliness.

Although parents might be aware of their children's loneliness, there was not a significant correlation between the parent-reported parent-child relationship quality and the parent-reported child loneliness level (Hypothesis 2), which is an area that has not been previously explored. According to the qualitative data, several children reported feeling quite connected to their teachers and other school personnel. This suggests that schools may play a very important role in identifying and intervening child loneliness. Additionally, there was not a significant correlation between the child-reported and the parent-reported parent-child relationship quality either (Hypothesis 4). This suggests that a mother might report a high parent-child relationship quality, but the child might not perceive this parent-child relationship as being as high. Possibly, it is the child's perception of the parent-child relationship quality that is more important in protecting children from experiencing high levels of loneliness. There was a significant and negative correlation between the child-reported parent-child relationship quality and the parent-reported child loneliness level. This suggests that the parent reported lower levels of child loneliness when the children reported higher quality of parent-child relationship.

Future research should examine the correlation between parent-child relationships and child loneliness in a larger sample, since the power of the current study is limited due to its small sample size. Future research should also examine what contributes to the

mismatch between parents and children in how they perceive parent-child relationships and how the mismatched perceptions subsequently impact the loneliness trajectory. Intervention programs may consider training parents to be aware of their children's perspectives. Increased parental empathy may promote communication, trust, and warmth between parents and children, and may subsequently enhance parent-child relationship quality and prevent chronic and severe child loneliness.

Follow-up analyses showed a significant and positive correlation between the child-reported and the parent-reported parent-child relationship for girls and their mothers. Contrastingly, no significant correlation between the two variables was found for boys and their mothers. Girls reported significantly higher levels of mother-child relationship quality compared to boys in this sample. It is hard to know if this result would hold up for a larger sample but it would be more informative if father-daughter and father-son dyads were also included in the study. This highlights the importance of looking at potential differences between boys and girls when investigating parent-child relationships. There is very little research on father-child relationships and this would be an important avenue to pursue in the future.

Friendship and Child Loneliness

A common theme that shared between children with low levels and high levels of loneliness was that they all had friends, although children with low levels reported having more friends than children with high levels. This is consistent with previous literature (Qualter & Munn, 2005). The current study also found that children with different levels of loneliness had different kinds of friendships. The friendship quality can be assessed

through a series of features, including the degree of companionship, help and guidance, intimacy, and ease of conflict resolution (Asher & Paquette, 2003). Children with low levels of loneliness appeared to have a higher degree of companionship and intimacy with their friends compared to children with high levels of loneliness. Children with low levels of loneliness received guidance and support from their friends inside and outside of classroom; whereas help from friends was generally not talked about by children with high levels of loneliness. Children with high levels of loneliness also disclosed stories reflecting relational aggression that was discussed in the literature (Crick & Nelson, 2002), and the lack of friendship stability (e.g., defriending, “yo-yo” friendships) might contribute to their high levels of loneliness.

Little is known about the role of beliefs about friendship in child loneliness. The current study provides some insight in this area. It was found that two children with high levels of loneliness may have misperceived the level of friendship. They seemed to mistakenly believe their friends who were mean and inconsistent to them were their good friends, and they got into in “yo-yo” friendships with their unreliable friends. It is possible that the belief was caused by the lack of reliable friends, and thus these children were more likely to misperceive their friendship nature. Their friendship problems were different from the small bickering mentioned by children with low levels of loneliness. The friendship problems discussed by these two children tended to be more dramatic and intense. Future studies should examine the impact of beliefs about friendships in child loneliness and design interventions that can help children to establish healthy friendship patterns.

Zhang et al. (2014) found that children's self-perceived social competence (i.e., ease at making and maintaining friends) mediated the relationship between their friendship quality and their feeling of loneliness. It is possible that children with low levels of loneliness perceived themselves as being socially competent, which prompted them to reach out to other children to make friends. This proactive social behavior might subsequently reduce their feelings of loneliness. Qualter et al. (2013) found that children with high levels of loneliness demonstrated hypervigilance in detecting threats from ambiguous social situations. They also found that children with high levels of loneliness showed intensified rejection sensitivity and disengagement difficulty when they viewed social exclusion stimuli. This may help to explain why children with high levels of loneliness in the current study did not always use proactive strategies to make friends. Perhaps these children found it too anxiety-provoking to initiate contact, and therefore, they were more likely to use passive strategies (e.g., wait to be approached, being introduced to new friends). However, the success rate of making friends using passive strategies might not be as high as that of proactive strategies, and the children who primarily used passive strategies were therefore more likely to experience loneliness.

Child friendship programs may focus on reducing children's cognitive biases toward ambiguous social stimuli when helping them to socialize with others. The programs may do so through teaching children how to reframe social situations. This can modify lonely children's maladaptive thinking, help them accurately interpret social cues, and increase their understanding of other children's intentions. The programs may also teach children relaxation skills to manage their anxious feelings. It is important to

differentiate the children who do not have the social skills to make friends and the children who have the social skills but feel anxious about making friends proactively. The interventions for these two types of concerns should be treated differently. In the current study, two children with high levels of loneliness used passive strategies to make friends, and other two children with high levels of loneliness did not have clear strategies. The intervention programs should focus on teaching social skills to children who do not know how to make friends. Contrastingly, they should focus on enhancing confidence and self-esteem for children with excessive amount of anxiety in approaching others.

School and Child Loneliness

Two children in the low loneliness group shared what they liked about their school's social environment. They felt they were welcomed, valued, and respected. They also felt a sense of belonging in a school community where everybody were friends and did things together. Contrastingly, one child in the high loneliness group disclosed that the feeling of loneliness sometimes made him not want to go to school. Research has shown that school environment is important to children's social emotional development (Galanaki & Vassilopoulou, 2007; Rokach & Sha'ked, 2013). Researchers found that supportive learning environments promoted children's attachment to school and motivated them to engage in school activities, which also subsequently enhanced their positive peer relationship (Chipuer, 2001). It is possible that social inclusion protected children from experiencing high levels of loneliness and increased their friendship development. It may help children feel safe to disclose their friendship problems and ask help from teachers.

The impact of social inclusion suggests that child loneliness may be reduced by universal intervention that focuses on promoting a positive environment at the school level, by addressing the entire school. For example, decreasing competition among children and increasing the amount of time spent in shared activities may help children to recognize the importance of social inclusion (Qualter, 2003). Other research suggests that increasing lonely children's classroom participation may enhance their sense of self-worth and subsequently reduce their loneliness levels (Stoeckli, 2010). Future research could examine the ecological system that impacts child loneliness. Interventions could target multiple protective factors in promoting child welfare.

Consistent with literature (Harris et al., 2013; Lohre, 2012; Qualter et al., 2013), children with high levels of loneliness were more likely to reported school absence due to somatic complaints (e.g., headache, stomach ache), whereas children with low levels of loneliness were more likely to miss school because of family obligations and routine check-ups. Although the current study did not explore specific biological mechanisms involved in child loneliness, it suggests that loneliness may come with physiological costs leading to children's declining health. Research has shown that loneliness is associated with heightened cortisol level in adult samples (Adam et al., 2006; Pressman et al., 2005; Steptoe et al., 2004). However, research has not examined the functioning of the stress regulation system among lonely children. Future research should explore this area. Potentially, frequent somatic complaints may identify at-risk children and intervening early may prevent the degradation caused by long-term loneliness.

In the current study, children with both high and low levels of loneliness reported supportive teacher-child relationships during interviews. Research has shown that the quality of teacher-child relationship plays a vital role in child loneliness, and the quality of the relationship can either aggravate or alleviate loneliness experiences (Galanaki & Vassilopoulou, 2007; Rokach & Sha'ked, 2013). Indeed, a child who feels lonely at home and school may turn to the teacher for help. According to a research study conducted by Galanaki (2004), lonely children indicated that they would like their teachers to demonstrate genuine interest and care in them in reducing their loneliness experiences. Teacher-child relationship has not been explored as much as parent-child relationship and friendship in the literature. The link between the teacher-child relationship and loneliness in middle childhood has not been systematically investigated. Future research should examine what aspects of a teacher-child relationship (e.g., warmth) can reduce child loneliness and involve teachers in delivering interventions.

Teachers' attitudes toward child loneliness and their ability to intervene may influence children's feelings and behaviors. Teacher training could be directed to guiding teachers to distinguish children with low and high levels of loneliness. Children with high levels of loneliness are more likely to have limited social support and poor self-perceived social competence. They are also more likely to experience chronic loneliness and stress compared to their peers (Galanaki & Vassilopoulou, 2007; Rokach & Sha'ked, 2013). Training teachers to identify these children, helping teachers to recognize the children's uneasiness in socialization, and encouraging teachers to provide methods of inclusion

may be beneficial for children to learn how to cope with their loneliness and to establish supportive social network.

Meaning of Child Loneliness

Children's responses in defining loneliness illustrated a multidimensional phenomenon of childhood loneliness. Children's responses can be classified into three dimensions: affective, cognitive, and situational. In this study, children seemed to understand that loneliness was related to unpleasant emotions (affective dimension). They used phrases such as "feeling sad", "feeling bored", and "feeling left out" in describing what it was like being lonely. Children also understood that loneliness was related to dissatisfaction with peer relationships (cognitive dimension). They reported "no one to play with" and "no one to talk to". The final dimension refers to the events that cause children to feel lonely (situational dimension). According to the results of a study by Liepins and Cline (2011), home and school were the most frequently mentioned locations where children felt lonely. As expected, children might feel most lonely at the playground or other outdoor leisure area. This finding is corresponded to what was found in the current study. Children indicated that they felt lonely during recess when they were excluded by their friends. Children with high levels of loneliness discussed such incidences more frequently with more details compared to children with low levels of loneliness.

Child loneliness during recess suggests that the playground may be an appropriate place to intervene. The Buddy Bench Intervention ("Wanted: Playground Buddy", 2016) is an idea to reduce loneliness and foster friendship on the playground. A buddy bench is

a special place on the playground where a child can go when he or she wants to talk and play with someone. Buddy benches may be especially helpful when a child is new to the school or a child's best friend is absent and the child does not know what to do. The intervention may be more effective in conjunction with other efforts (e.g., curriculum on diversity and inclusion) to promote a friendly school community. Buddy benches may work well for children who feel anxious about approaching other people. It may enhance the success rate of making friends using passive strategies and prevent high levels of loneliness.

Jobe-Shields et al. (2011) suggested that children in middle childhood started to relate loneliness to a psychological discomfort due to the perceived lack of emotional support (i.e., emotional loneliness) rather than a lack of concrete contact with others (i.e., social loneliness). Liepins and Cline (2011) proposed that the affiliative needs of children underwent developmental changes and increased their emotional awareness in experiencing loneliness. The current study produced mixed results in terms of children's ability to differentiate social and emotional loneliness. Children in both groups of low and high levels of loneliness discussed social isolation when they talked about loneliness experiences. All children used phrase, "without friends", in explaining what loneliness meant to them, which suggested that social isolation still played a dominant role in children's understanding of loneliness during middle childhood. However, only children with low levels of loneliness discussed emotional isolation when they talked about loneliness experiences. They reported that loneliness was an emotional state that no one understood them and could not comfort them. However, such emotional awareness of

loneliness was not stated by children with high levels of loneliness. In contrast, they focused on examples of social exclusion in their responses.

It is possible that children with low levels of loneliness still felt lonely although they had others around them, which helped them to internalize loneliness as an emotional state in addition to a lack of social support. However, sufficient social support may protect them from experiencing high levels of loneliness. Children with high levels of loneliness did not perceive they had as much social support, which helped them to internalize loneliness as social isolation. Early research (Galanaski, 2004) suggested that more than half of the children in elementary school were capable of differentiating between social and emotional loneliness. It is unclear what makes some children able to differentiate these two concepts but not others, and perhaps it is related to the level of loneliness. Future research should examine what contributes to children's understanding of emotional loneliness. Interventions may be different depending on what kinds of loneliness children are experiencing. If a child is experiencing social loneliness, interventions fostering friendships may be a good fit. If a child is experiencing emotional loneliness, interventions may focus on teaching children how to regulate their feeling of loneliness by developing interests and engaging in solitary activities.

Coping with Child Loneliness

Consistent with Besevegis and Galanaki (2010), children in the current study utilized both problem-focused and emotion-focused strategies in coping with their loneliness experiences. However, children's preferences for strategies differed depending on their levels of loneliness. This adds additional insight to the literature in understanding

how children cope with loneliness, which is a neglected research area. In this study, it is found that children with low levels of loneliness were more likely to use problem-focused strategies (e.g., make new friends, contact existing friends, seek help from adults) to cope with their loneliness. In contrast, it is found that children with high levels of loneliness were more likely to use emotion-focused strategies (e.g., keep busy through reading, drawing, and watching TV) to cope with their loneliness. It is also found that not all children with high levels of loneliness knew how to cope with loneliness. Some indicated they did nothing, “just sit there”, when they felt lonely. This kind of passive response seemed to show a sense of helplessness discussed in the literature (Besevegis & Galanaki, 2010). Understanding how children cope with loneliness may provide guidance as to which intervention is the most suitable for children with different levels of loneliness. A combination of problem-focused and emotional focused coping strategies may work well for children with high levels of loneliness. Increasing children’s competence in socializing with others and regulating their emotional reactions to aloneness may be critical in successfully intervening in child loneliness.

There may be a few reasons why children with high levels of loneliness are more reluctant in seeking support from others when they feel lonely. First, perhaps their relationships with others cause them to feel lonely, considering that these children are often lack of high-quality relationships with others, and therefore they may not want to seek support from others when they feel lonely. Second, children with high levels of loneliness may lack the social skills required to initiate and maintain contact with others, and this may explain why they do not approach others when they feel lonely. Third,

perhaps children with high levels of loneliness want to approach others, yet, they may be too afraid of being rejected by other people.

Understanding the different reasons that contribute to children's social alienation may be informative to future interventions in enhancing children's social integration and emotional development. Children who isolate themselves from others may do so because of various reasons and they may need different kinds of interventions. Increasing our understanding of how children internalize loneliness and how they cope with loneliness will enable teachers, parents, and mental health professionals to intervene effectively to improve their social emotional functioning.

Chapter Summary

This chapter discussed the meanings and suggestions of the current study. It was found that parents were accurately aware of their children's loneliness levels. However, parents and children did not seem to share the same view when it came to parent-child relationship quality. Additionally, contrasting to children with high levels of loneliness, children with low levels of loneliness reported consistent strategies to make friends and cope with their loneliness experiences; whereas children with high levels of loneliness sometimes reported sporadic strategies or no strategies in terms of coping and problem-solving social problems. Nevertheless, children from both groups found relationships with teachers and other school professionals very helpful in ameliorating their feelings of loneliness. Their relationships with school personnel might be particularly meaningful for children who reported high levels of loneliness. Implications of the current study will be further discussed in the next chapter.

Chapter Five: Summary

Summary of Findings and Implications

This study adds to the current literature linking child loneliness to several adjustment difficulties. The results are consistent with some of the previous work that has associated child loneliness with poor adjustment socially, emotionally, and perhaps also academically. This study specifically supported a negative correlation between the level of child loneliness and the parent-child relationship quality from children's perspective but not from parents' perspective. In addition, it suggested children with high levels of loneliness were more likely to experience friendship problems or have less intimate friendships. It also suggested children with high levels of loneliness were likely to display more frequent somatic complaints and stronger school dislike. These findings extend previously literature to further illuminate the impact loneliness can have on children during middle childhood.

This study found that parent-reported parent-child relationship did not correlate with child loneliness. Rather, it is the child-reported parent-child relationship that negatively and significantly correlated with child loneliness. Therefore, it is possible that high-quality parent-child relationship perceived by children can have a protective effect on child loneliness. It is also possible that other aspects of parent-child interactions may be more relevant to the protective effect. Other explanatory models involving parent-

child interactions may exist, and continued exploration would provide clearer knowledge about the impact of various parent-related components.

This study also found that children with different levels of loneliness coped with loneliness experiences differently. Children also held different views regarding their friendships, parent-child relationships, and attitudes toward school. Children with low levels of loneliness were more likely to know how to approach others and make friends. They also had more effective strategies to cope with their loneliness experiences. They seemed to trust their friends and parents and had consistent and positive feelings toward people around them. Additionally, they were more likely to perceive school climate as socially inclusive and believed it was a positive experience to go to school. Contrastingly, children with high levels of loneliness did not always know how to make friends. Even if they did, the strategies they used might not always be effective. They had similar struggling when it came to coping with loneliness as they did not always know how to cope with these experiences. In addition, they had ambivalent and conflicting relationships with friends and parents. However, children from both groups felt connected with teachers and school psychologists, and children from both groups found pursuing academic interests rewarding. The findings highlight the important roles school professionals play in protecting children from experiencing high levels of loneliness. It calls attention to creating supportive social environment at school that helps to enhance children's well-being, functioning, and life satisfaction.

Loneliness has negative implications for children's social success, emotional health, and academic functioning, and therefore deserves attention by teachers, parents,

and mental health professionals. Early prevention focused on improving children's social relationships, coping skills, and anxiety management may be beneficial to ameliorate negative effects of loneliness that can persist into late childhood. The results of the study are summarized in the following Figure 1 and Figure 2 from an ecological perspective, which captures a holistic view on children's experiences with low and high levels of loneliness.

Figure 1. Ecological Model – Children with Low Levels of Loneliness

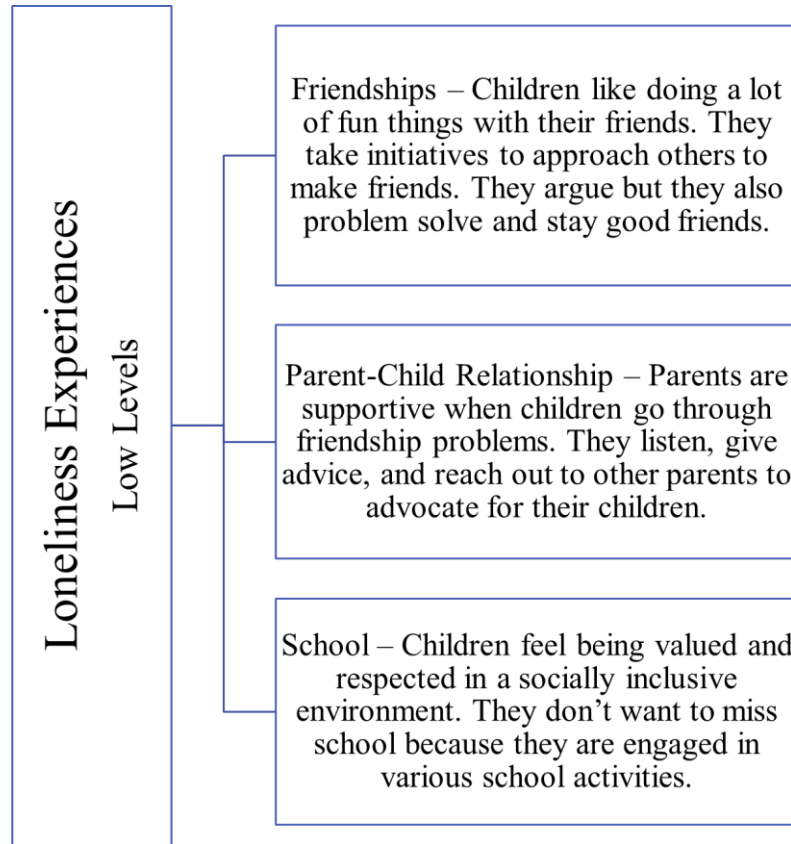


Figure 1. Children with low levels of loneliness were examined in an ecological model that included friendship, parent-child relationship, and school.

Figure 2. Ecological Model – Children with High Levels of Loneliness

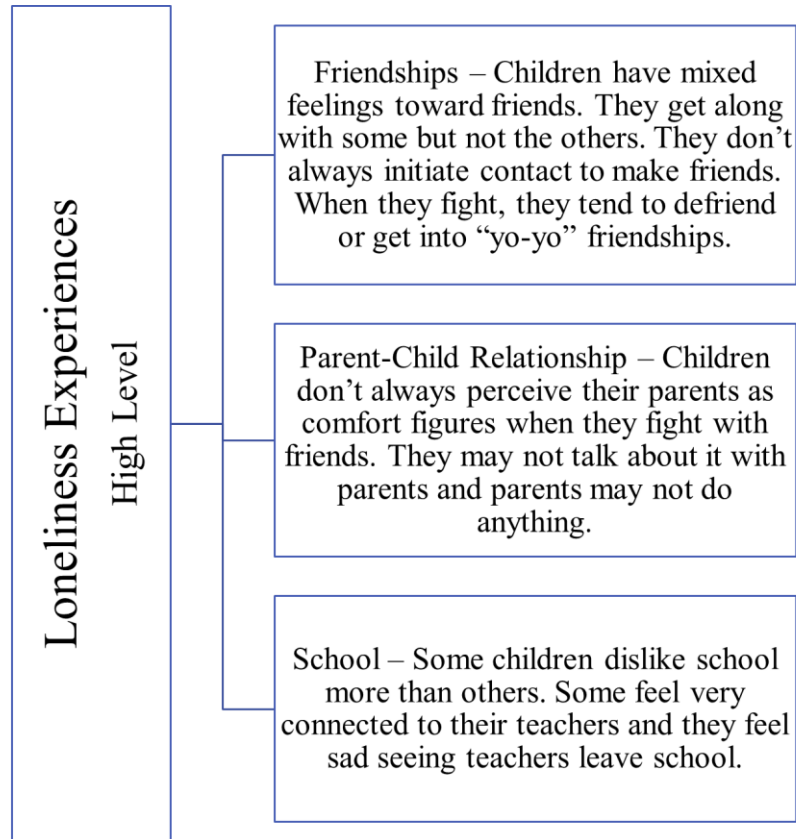


Figure 2. Children with high levels of loneliness were examined in an ecological model that included friendship, parent-child relationship, and school.

Limitations of the Study

This study addressed important gaps in the child loneliness literature; however there are limitations in its design. First, this study relied on self-reports from mothers and children. Although there is strong evidence supporting the utility of self-reports (Ladd & Troop-Gordon, 2003), this method has some limitations. The use of behavioral observation in addition to self-report may be able to provide more comprehensive assessment of parent-child interaction. Future studies could investigate parent-child relationships by incorporating observation methods and examine what specific aspects of parent-child interaction account for the protective effect in ameliorating child loneliness.

Second, the sample size of the current study is very small due to the recruitment difficulty. Although a lot of recruiting effort had been made, the researcher was only able to recruit twelve mother-child dyads that were qualified to participate in the study. Among the twelve dyads, two boys had the same mother and two girls had the same mother, which is not ideal for statistical analyses. The findings need to be verified in a much larger sample in the future. In addition, the sample was not racially diverse. Eleven mother-child dyads are Caucasian, and one mother-child dyad is African American. No other ethnic group participated in this study. The mothers who participated in this study are also highly educated. Five mothers have a college degree, and the other five mothers have a graduate degree. Although the researcher did not collect information related to household income, it is possible that the participating families come from middle or upper-middle class. The lack of diversity in terms of race, education, and social class largely limited the generalizability of the study results to a broader population.

This study also relied on correlational data which did not allow for determination of causal relationships. One goal of this study was to help identify children that may be at risk for poor adjustment due to loneliness experiences. It is likely that the risk level is related to a combination of factors and the first step is to establish associations among degrees of loneliness, parent-child relationships, friendships, and attitudes toward school in this age group. It may be helpful for future studies to explore causal mechanisms related to child loneliness and further investigate possible intervention strategies for children with high levels of loneliness. Other recommendations for future research that may address some of the limitations of the current study are discussed below.

Recommendations for Future Research

This study explored the correlation between child loneliness and parent-child relationship from both children's and parents' perspectives. It is needed to gather a larger sample size to explore the correlational variables. This will expand the opportunities to detect and understand significant relationships. For example, the current study did not find a significant relationship between parent-reported and child-reported parent-child relationships. One explanation could be due to its small sample size. A larger sample size will also provide more statistical power to utilize more complex statistical models, such as multiple regression analysis and structural equation modeling. This will allow testing of more intricate relationships among child loneliness, parent-child relationship, potential moderators (e.g., gender) and mediators (e.g., perceived peer status), and child outcomes (e.g., life satisfaction).

It will be extremely beneficial to recruit fathers to participate in the study examining child loneliness. The current study found that girls reported significantly higher scores on parent-child relationship questionnaire compared to boys'. However, since only mothers participated in this study, the gender differences might help to explain this finding. It is helpful for future studies to specifically examine parent-child relationship from father's perspective. Compared to studies extensively focused on mother's roles, research on father's roles received much less attention, and thus recruiting fathers can increase an understanding of their contribution in child emotional development and intervention.

It is also beneficial to recruit children with extremely high levels of loneliness and examine what their friendships, parent-child relationships, and attitudes toward school are like. Although children who participated in this study were divided into groups with low and high levels of loneliness, the scores reported by children in the high group were considered moderately high on the assessment spectrum. In other words, this study did not recruit children at the very high end in terms of loneliness scores. It is very likely that these children will have more social emotional difficulties compared to children who report low and moderate levels of loneliness, and children with extremely high levels of loneliness probably deserve the most attention when it comes to risk assessments and interventions.

In the current study, two children reported changes of loneliness levels at the interview compared to their original scores on the survey. Due to a small sample size, these two children were switched to the low or the high loneliness groups. Jobe-Shields et

al. (2011) found that although most children maintained the same loneliness level across middle childhood, a group of children reported changes of loneliness levels due to various reasons (e.g., transition to a new school, death of a family member), and the researchers suggested there may be a third group of children (changers) that need to be studied separately from those children with stable levels of loneliness. With a larger sample size, future researchers could interview children with various degrees of loneliness and divide them into four categories: the Stable-Low group, the Stable-High group, the Increasing-Level group, and the Decreasing-Level group. Refined categorization may capture clear patterns of changes in children's loneliness and deepen our understanding of this process.

Finally, future researchers may consider incorporating more age-appropriate inquiry methods during child interviews, such as utilizing drawing and art crafting to engage with children. In addition, it may be beneficial to include parent interviews as well. Researchers will be able to compare and contrast qualitative data obtained from the child and the parent to draw implications on child loneliness and parent-child relationship. This was the first known mixed method study to explore the influence of the parent-child relationship quality on middle childhood loneliness experiences from the child's and the parent's perspectives. Therefore, replications will be very helpful to verify and extend the preliminary findings of this initial study.

Conclusions

Collectively, the findings of the study point to loneliness as a significant phenomenon in middle childhood and that it is associated with several factors, including

friendship quality, relationship with parent, and experience at school. This study created a better understanding of the experiences of lonely children in middle childhood. Learning about the outcomes associated with loneliness (e.g., lack of social support, school dislike) in this age group may assist school psychologists, teachers, and parents in better understanding how loneliness can impact children's success socially and academically. For example, findings indicate that children with higher levels of loneliness do not always know how to approach others, which may impact their ability to ask a teacher for help or make a new friend. Children with higher levels of loneliness also disclosed less supportive social relationships, which may cause them to disengage at school or feel less connected to peers. Understanding the impacts of loneliness may help increase others' sensitivity to the various struggles that lonely children face, particularly the children with higher levels of loneliness. This knowledge may also be used to facilitate the development and implementation of effective interventions to enhance lonely children's social, emotional, and academic well-being.

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Appendix A

Letter to Schools and Organizations

Dear XXXX:

I am a master's student in Counseling Psychology at the University of Denver under the supervision of Dr. Maria Riva. I am conducting research on the impact of loneliness. Loneliness negatively affects many children, particularly in social settings such as school. Previous research has shown that several characteristics of lonely children, such as lack of social support, can cause problems for lonely children at school. The mismatch between lonely children's characteristics and the demands of school can also cause problems such as social anxiety. More importantly, these conditions can cause children to have negative attitudes about school, which can be detrimental to social participation and academic performance. Much more research is needed to better understand what factors might be able to help these children. Parent figures are known to be an important influence on children's social emotional adjustment. Therefore, this research study will explore how parent-child relationship is related to children's loneliness expression and coping. This information can be helpful to clinicians, parents and teachers who seek to improve children's social, emotional and academic functioning.

My goal is to assess the level of children's loneliness and their parent-child relationship. I would appreciate your help in distributing study flyers to each of your 2nd to 4th grade students who can bring back home to their parents or caregivers. Alternatively, you could insert the flyers into the mails that are regularly sent home to parents. Once the flyers have been reached to parents, there is no further requirement from the school. Interested parents and caregivers can reach out to me via contact information listed on the flyers. All contact with parents and children will take place outside of school, and will not take time at school.

Your students' privacy is extremely important and will be protected. All identifying information gathered during this study, including names, will remain confidential. Once the study is completed, I would be glad to present the results to interested faculty, which may provide valuable information that faculty members may use to better identify and understand lonely children they work with.

I would greatly appreciate your assistance with this study. Please contact me if you have any questions or concerns. Once I have your permission, I will contact you again to begin recruiting.

A brief description of the study is enclosed. Thank you for your consideration of this research. My contact information is listed below. I hope to hear from you soon.

Sincerely,

Nanxi Xu, M.A. Candidate

Email: nanxi.xu@du.edu

Phone: 608-358-2059

Description of the Study

It is the aim of this study to investigate what the lonely children are experiencing, often at school, and how the parent-child relationship is related to these experiences. The results of this study will hopefully contribute to existing knowledge about how parents, educators, and clinicians may be able to help lonely children be more successful socially, emotionally and academically.

Participants will be recruited on a voluntary basis if they meet the following inclusion criteria:

1. The child is in 2nd to 4th grade.
2. The child is willing to complete a demographic questionnaire, two assessment measures.
3. The child's parent figure is willing to complete a demographic questionnaire and two assessment measures.
4. The child may also be asked to participate in an interview if randomly selected.

Participants will be excluded for the following reasons:

1. The child shows severe mental health symptoms.
2. The child is unable to understand the instruction of the study.

Child Participants:

Children will be asked to complete a Demographic Questionnaire, the Personal Relationship subscale of the Parent-Child Relationship Questionnaire (PCRQ), the Loneliness and Social Dissatisfaction Questionnaire. Some children will be randomly selected to participate in an interview in addition to completing questionnaires. Measures will be individually administered at a convenient location chosen by the child and the parent.

Parent Participants:

Parents and caregivers will be asked to complete a Demographic Questionnaire, the Personal Relationship subscale of the PCRQ, and the Loneliness and Social Dissatisfaction Questionnaire on their children. The parent figures will complete the measures at a convenient location designated by them. The parent figures will hand over the measures to the researcher in person along with completed child questionnaires.

Description of the Assessment Measures:

The Demographic Questionnaires assess relevant identifying information about the participants. The Demographic Questionnaires also ask two questions about perceptions of the child's loneliness. The PCRQ measures the parent figure's and child's perception of the parent-child relationship. The Personal Relationship subscale of the PCRQ will be administered, which consists of 10 items. Higher scores on the subscale represent more companionship and intimacy in the parent-child relationship. The Loneliness and Social Dissatisfaction Questionnaire is a 24-item measure of children's feelings of loneliness, feelings of social adequacy, and subjective representing more loneliness and social dissatisfaction. The Interview Questions consists of four aspects which will provide a more in-depth view on how children function at different social occasions regarding friendship and feelings of loneliness.

Researcher Contact Information:

Nanxi Xu, M.A. Counseling Psychology Candidate

Email: nanxi.xu@du.edu

Phone: 608-358-2059

Letter of Support

I. Research Background (to be completed by researcher)

Title of the Study: A Study about Children's Feelings and Relationships

Name of Researcher: Nanxi Xu, M.A. Candidate in Counseling Psychology

Address: 1999 East Evans Avenue, Denver, CO, 80208

Email: nanxi.xu@du.edu

Phone: 608-358-2059

II. Description of the Study

Researcher is to provide the agency with a copy of the study flyer and a letter.

III. Agreement (to be completed by the agency)

I, _____ (name), _____
(title), support the proposed study, with the understanding that

- ✓ Once the study flyers reach to parents, there is no further requirement from the agency,
- ✓ the privacy and confidentiality of any student and their family will be protected,
- ✓ I have the right to stop sending information out to parents about this study at any time,
- ✓ I have the right to review all consent forms and research documents used in this study
- ✓ findings from this study will be distributed to me upon request

Please check each of the following statements:

____ I have reviewed the study flyer of the above named research.

____ I find the findings of the above named research may be helpful to the work of our agency

Signature of School/Organization Administrator

Appendix B

Informed Consents and Assents

Study Part I – Parent Consent Form

You and your child are invited to participate in a study titled “A Study about Children’s Feelings and Relationships.” This study will look at loneliness in children and the role that the parent-child relationship plays in their adjustment. This study is being conducted by Nanxi Xu, M.A. Candidate, under the supervision of Dr. Maria Riva as part of the requirement for the master degree in Counseling Psychology at the University of Denver.

You and your child each will be asked to complete three questionnaires, which are expected to take approximately 20-30 minutes. Participation in this project is voluntary. To thank you for participating in this study, you will be entered into a random drawing for one of eight \$25 gift cards and your child will be compensated for his or her time with a toy of \$5 in value. If you choose to participate in this study, there are minimal foreseeable risks to you and your child. Although it is not expected, it is possible that answering these questions will cause mild stress. You and your child can choose not to answer specific questions or end participation at any time with no penalty. Although it is not expected, while participating in this study, if any discomfort happens to you or your child, or if it becomes clear that your child is very lonely, the researcher will provide you a list of mental health facilities and may refer you to counseling agencies.

I will not share your answers with your child and I will not share your child’s answers with you. Both yours and your child’s confidentiality is protected. However, you and your child can choose to discuss questions however you want after the study. If your child becomes distressed or reports being very lonely, you will be notified.

All of the information you and your child provide will be kept confidential. The findings of this study may be presented for professional use; however no identifying information will be used. After visiting each family, the family will be assigned with a participant ID number, and all the identifiable documents, such as the consent forms, will be scanned and then saved on a secured and password-protected computer. All the hard copies of the identifiable documents will be shredded immediately afterward.

There is no direct benefit involved in this part of the study. Through this study, it is my hope that information will be gained to better understand children experiencing loneliness and to find ways to assist children to develop positive social relationships. I hope that the information families provide to me will help schools more effectively work with children in coping with loneliness. The information provided by families who participate in this study may also provide recommendations to schools and other organizations that work with school age children.

Although no questions in this research address these issues, we are required by law to tell you that if information is revealed by you or your child concerning child abuse and neglect or threat to harm oneself or others, it is required by law that this be reported to the proper authorities. If any information contained in this study becomes the subject of a court order or lawful subpoena, the University of Denver might not be able to avoid compliance with the order or subpoena.

If you or your child has any questions or concerns about this study, you may contact the researcher Nanxi Xu at 608-358-2059 or the Faculty Sponsor overseeing the project, Dr. Maria Riva at 303-871-2484. If you or your child has any concerns or complaints about how you or your child was treated during this research, or your rights as a participant, you may contact the DU Office of Research Integrity and Education at IRBAdmin@du.edu or 303-871-2121.

Participating in this research study is completely voluntary. Even if you decide to participate now, you or your child may change your mind and stop at any time. You may choose not to for example, answer any survey question, for any reason without penalty or loss of other benefits to which you are entitled.

Two copies of this form were provided. You may keep one copy for your records. Please sign below if you understand the above.

“I have read and understood the foregoing description of the study. I have asked for and received a satisfactory explanation of any language that I did not fully understand. I understand that we may withdraw consent at any time.”

Please mark one:

Yes, I agree to participate and have my child participate

No, I do not agree to participate or have my child participate

Name of Parent/Caregiver

Name of Child

Parent/Caregiver Signature

Date

Study Part I – Child Assent Form

Hello, my name is Nanxi Xu. I am looking at how children your age feel about school, home, and friends. For example, I will be asking you some questions about your feelings of loneliness. Feeling lonely is a very common feeling. Everyone feels lonely at some point and I am interested in knowing what you do when you have those feelings. I would like to invite you to be part of my study.

What will happen to me in this study?

If you decide to be a part of this study, I will ask you some questions. The first group of questions will ask about you, such as your name, grade in school, and age. The second group of questions will ask you more about your feelings, such as ways you might feel or act. The last group of questions will ask about your relationship with your parent or caregiver. It will take about 15 to 20 minutes to answer all of these questions.

Can anything bad happen to me?

Some of these questions will be about your friends, what you do at home, and school. Perhaps, you might feel a little sad or anxious about some of the questions. If that happens, just let me know, and you do not need to answer that question. If you want to stop the study at any time, for any reason, that is okay too.

Can anything good happen to me?

Sometimes it helps kids your age to learn about yourself by answering these questions. You may find out what you are like and what you like to do.

Will anyone know I am in the study?

All of your answers will be kept confidential. That means that no one else, such as your parents, teachers, or classmates, will be able to find your answers to these questionnaires unless you choose to tell them. However, I do have to break our promise in one situation: I have to let other people, such as your parents, know your answers if you tell me you are going to hurt yourself, or others, or someone is hurting you.

What do I get from being part of this study?

To thank you for helping me with this study, you can pick one toy from a box of toys.

Who can I talk to about the study?

If you have questions about the study or any problems to do with the study, you can talk with your parent about your questions or problems, and have your parent to contact me if needed.

What if I do not want to do this?

You do not have to be part of this study. It is okay to say no. If you want to participate now, but change your mind later, that is okay too. You can stop at any time without getting in trouble and no one will be mad at you.

Signature:

If you agree to be in this study, please sign here:

Signature of Child

Date

Study Part II – Parent Permission Form

The goal of the second part of this study is to know more information about how children cope with their feelings. During this part of the study, your child will be asked to participate in an interview with me. I will ask questions about your child's thoughts and feelings about his or her school, friends and family.

RISKS:

The risks associated with this study are minimal. Although unlikely, it is possible that discussing some of the interview questions will cause mild stress such as feelings of sadness. If your child becomes uncomfortable, or if it becomes clear that your child is very lonely, I will provide you a list of mental health facilities and may refer you to counseling agencies.

CONFIDENTIALITY:

I will not share your child's answers with you. However, you and your child can choose to discuss questions however you want after the study. However, during the interview, if your child becomes very distressed, reports being very lonely, or appears to have a poor relationship with his or her caregiver, you will be notified. I will also provide you with some counseling resources.

The interview will be audio-recorded by the researcher for data analysis purpose only. Audio-records will not be heard by anyone besides the researcher and recording will be erased after the study is finished. All of the information your child provides will be kept confidential. Your decision whether or not to allow your child to participate in this study will not affect your child's grades or participation in school.

As a graduate student in the Counseling Psychology program, I am trained in family therapy, child development, interviewing strategies, risk management and prevention. If I become concerned about information I gain from your child, I will stop the interview, talk to you and your child about my concerns and provide mental health options. I am not able to provide counseling to your or your child due to conflict of interest as being the researcher for this study.

BENEFITS:

Although there is no direct benefit involved in this study, children often find it helpful talking about their experiences with someone. We cannot and do not guarantee or promise that your child will receive any benefits from this study. Through this study, I hope to better understand children who are experiencing loneliness and to find ways to assist them to develop positive social relationships. I hope that the information families provide to me will help schools more effectively work with children in coping with their loneliness experiences.

TIME INVOLVEMENT:

It is expected to take your child 15 to 30 minutes to complete the interview.

PAYMENT:

As a way to thank you for your time and your child’s participation, you will be compensated with a \$10 gift card, and your child will be compensated with a toy upon your agreement (see below).

PARTICIPANT’S RIGHTS:

If you have read this form and have decided to allow your child to participate in this project, please understand your child’s participation is voluntary and your child has the right to withdraw his/her consent or discontinue participation at any time without penalty or loss of benefits to which he/she is otherwise entitle. Your child has the right to refuse to answer particular questions. Your child’s individual privacy will be maintained in all published and written data resulting from the study.

MANDATORY REPORTING:

Although no questions in this research address these issues, we are required by law to tell you that information is revealed by you or your child concerning child abuse and neglect or threat to harm oneself or others, it is required by law that this be reported to the proper authorities.

CONTACT INFORMATION:

If you or your child has any questions or concerns about this study, you may contact the researcher Nanxi Xu at 608-358-2059 or the Faculty Sponsor overseeing the project, Dr. Maria Riva at 303-871-2484. If you or your child has any concerns or complaints about how you or your child was treated during this research, or your rights as participant, you may contact the DU Office of Research Integrity and Education at IRBAdmin@du.edu or 303-871-2121.

I agree to have my child audiotaped (Please check one).

Y___ N___

I agree my child to have a toy at the end of the study (Please check one).

Y___ N___

Signature(s) of Parent(s), or Guardian

Date

A copy of this signed and dated consent form is for you to keep.

Study Part II – Child Assent Form

Thank you for talking to me to see if you want to be in this part of the study. For this part, it is a little different than the first time we met. For this part of the study, I would like to know how you feel when you have a hard time with your friends, at school, and at home; and what you do about it. For this part, I will ask you some questions but you do not need to write anything down.

What will happen to me in this study?

If you decide to be a part of this study, I will ask you some questions about your school, home, and friends. It will take about 20 to 30 minutes to answer these questions.

Can anything bad happen to me?

Some of these questions will be about your friends, what you do at home, and school. Perhaps, you might feel a little sad or anxious about some of the questions. If that happens, just let me know, and you do not need to answer that question. If you want to stop the study at any time, for any reason, that is okay too.

Can anything good happen to me?

Sometimes it makes kids your age feel better to have a chance to talk about things that are going on at home or school.

Will anyone know I am in the study?

Our conversation will be recorded so I can make sure I know exactly what you say. Non one else except me will hear what we talk about. The recording of our conversation will be erased after this study is over. No one besides, you, your parent, and I will know that you are in the study unless you want to tell someone. No one, such as your parents, teachers, or friends, will be able to find out what you talk about unless you choose to tell them, or you tell me that you are thinking about hurting yourself, or others, or someone is hurting you. During our conversation, if you tell me that you are having some big problems at home, I will likely need to bring it up with your parent and suggest some ways to help you feel better.

What will I get from being part of this study?

To thank you for helping me with this study, you can pick one toy from a box of toys.

Who can I talk to about the study?

If you have questions about the study or any problems to do with the study, you can talk with your parent about your questions or problems, and have your parent contact me if needed.

What if I do not want to do this?

You do not have to be part of this study. It is okay to say no. If you want to participate now, but change your mind later, that is okay too. You can stop at any time without getting in trouble and no one will be mad at you.

Signature

If you agree to be in this study, please sign here:

Signature of Child

Date

Appendix C

Screening Questions

1. What is your child's name? _____; what grade is your child in? _____

2. What is your relationship to your child? _____

3. Has your child had any friendship difficulties in the past? Yes/No/Not sure;

3 (a) is your child currently experiencing any friendship difficulties? Y/N/I'm not sure

4. Do you live together with your child? Yes/No

5. Is your child seeing any mental health professional outside of school? This may be a counselor, psychotherapist, or psychologist.

Yes.

No.

5(a) if yes, what are the main reasons for seeing this mental health professional?

5(b) if no, has your child ever seen any mental health professional outside of school?

6. Does your child have any mental health diagnosis? (If applicable to ask this question)

Yes.

No.

6(a) if yes, what were the mental health issues?

6(b) if yes, do you think this past experience might interfere with your child's current ability to participate in this study?

Yes.

No. Reason _____

Appendix D

Demographic Questionnaires

Child Demographic Questions

1. What is your name? _____

2. What is your age? _____

3. What is your gender? (circle one):

Male

Female

4. Which ethnicity do you consider yourself to be? (circle one):

Hispanic/Latino

Asian/Pacific Islander

African American

Caucasian

Native American

Other (please specify):

5. Current grade level: _____

6. What is the primary language that you speak at home? _____

7. How often do you feel lonely? (circle one):

1

2

3

4

5

I am never
lonely

I am a little
lonely

I am lonely
sometimes

I am often
lonely

I am always
lonely

8. How much is being lonely a problem for you? (circle one):

1

2

3

4

5

Loneliness is
never
a problem

Loneliness is
hardly ever
a problem

Loneliness is
sometimes
a problem

Loneliness is
often
a problem

Loneliness is
always
a problem

Parent Demographic Questions

1. What is your name? _____

2. What is your child's name? _____

3. What is your relationship to your child? (circle one):

Biological parent Step-parent Adoptive parent

Grandparent Foster parent Guardian

Other: _____

4. What is your gender? (circle one):

Male Female

5. Which ethnicity do you consider yourself to be? (circle one):

Hispanic/Latino Asian/Pacific Islander

African American Caucasian

American Indian Other (please specify): _____

6. What is your highest education level? (circle one):

Some high school High school Diploma/GED

Some college College Degree

Some graduate work Graduate Degree

7. What is the primary language that you speak at home? _____

Please answer the following two questions about your child:

8. How lonely do you consider your child to be? (circle one):

1	2	3	4	5
My child is never lonely	My child is a little lonely	My child is lonely sometimes	My child is often lonely	My child is always lonely

9. How much is being lonely a problem for your child? (circle one)

1	2	3	4	5
Loneliness is never a problem	Loneliness is hardly ever a problem	Loneliness is sometimes a problem	Loneliness is often a problem	Loneliness is always a problem

Appendix E

Parent-Child Relationship Questionnaire

Child Directions: Please answer all questions about your relationship with the parent or caregiver that you spend the most time with. Please answer all questions about this person, even if you have more than one parent figure. There is no right or wrong answer. Please mark “Hardly at all,” “Not too much,” “Somewhat,” “Very much,” or “Extremely much” according to how much the statement applies to your relationship with this parent figure.

	Hardly at all	Not too much	Some- what	Very much	Extremely much
1. How much do you and this parent figure do nice things for each other?	1	2	3	4	5
2. How much do you and this parent figure like the same things?	1	2	3	4	5
3. How much do you and this parent figure tell each other everything?	1	2	3	4	5
4. How much does this parent figure show you how to do things that you don't know how to do?	1	2	3	4	5
5. How much do you and this parent figure go places and do things together?	1	2	3	4	5
6. How much do you and this parent figure give each other a hand with things?	1	2	3	4	5
7. Some parent figures and children have a lot of things in common, while other parent figures and children have a little in common. How much do you and this parent figure have things in common?	1	2	3	4	5
8. How much do you and this parent share secrets and private feelings with each other?	1	2	3	4	5
9. How much does this parent figure help you with things you can't do by yourself?	1	2	3	4	5
10. How much do you play and have fun with this parent figure?	1	2	3	4	5

Parent Directions: Please enter the following questions about your child. Please mark “Hardly at all,” “Not too much,” “Somewhat,” “Very much,” or “Extremely much” according to how often the statement applies to your relationship with this child.

	Hardly at all	Not too much	Some- what	Very much	Extremely much
1. How much do you and this child do nice things for each other?	1	2	3	4	5
2. How much do you and this child like the same things?	1	2	3	4	5
3. How much do you and this child tell each other everything?	1	2	3	4	5
4. How much do you show this child how to do things that he or she doesn't know how to do?	1	2	3	4	5
5. How much do you and this child go places and do things together?	1	2	3	4	5
6. How much do you and this child give each other a hand with things?	1	2	3	4	5
7. Some parent figures and children have a lot of things in common, while other parent figures and children have a little in common. How much do you and this child have things in common?	1	2	3	4	5
8. How much do you and this child share secrets and private feelings with each other?	1	2	3	4	5
9. How much do you help this child with things he or she can't do by him- or herself?	1	2	3	4	5
10. How much do you play and have fun with this child?	1	2	3	4	5

Appendix F

Loneliness and Social Dissatisfaction Questionnaires

Child Directions: These are some questions about school and friends. There is no right or wrong answer. I want you to answer “Definitely yes,” “Yes,” “Sometimes,” “No,” “Definitely no,” or “I’m not certain,” whichever tells best how you feel. Please circle your best choice to each question.

	Definitely yes	Yes	Sometimes	No	Definitely no
1. Is it easy for you to make friends at school?	1	2	3	4	5
2. Do you like to read?	1	2	3	4	5
3. Do you have other kids to talk to at school?	1	2	3	4	5
4. Are you good at working with other kids?	1	2	3	4	5
5. Do you watch TV a lot?	1	2	3	4	5
6. Is it hard for you to make friends at school?	1	2	3	4	5
7. Do you like school?	1	2	3	4	5
8. Do you have lots of friends at school?	1	2	3	4	5
9. Do you feel alone at school?	1	2	3	4	5
10. Can you find a friend when you need one?	1	2	3	4	5
11. Do you play sports a lot?	1	2	3	4	5
12. Is it hard to get kids in school like you?	1	2	3	4	5
13. Do you like science?	1	2	3	4	5
14. Do you have kids to play with at school?	1	2	3	4	5
15. Do you like music?	1	2	3	4	5
16. Do you get along with other kids at school?	1	2	3	4	5
17. Do you feel left out of things at school?	1	2	3	4	5

18. Are there kids you can go to when you need help in school?	1	2	3	4	5
19. Do you like to paint and draw?	1	2	3	4	5
20. Is it hard for you to get along with the kids at school?	1	2	3	4	5
21. Are you lonely at school?	1	2	3	4	5
22. Do the kids at school like you?	1	2	3	4	5
23. Do you like playing card games?	1	2	3	4	5
24. Do you have friends at school?	1	2	3	4	5

Parent Directions: These are some questions about school and friends. There is no right or wrong answer. I want you to answer “Definitely yes,” “Yes,” “Sometimes,” “No,” “Definitely no,” or “I’m not certain,” whichever tells best how you think your child might feel. Please circle your best choice to each question.

	Definitely yes	Yes	Sometimes	No	Definitely no
1. Is it easy for your child to make friends at school?	1	2	3	4	5
2. Does your child like to read?	1	2	3	4	5
3. Does your child have other kids to talk to at school?	1	2	3	4	5
4. Is your child good at working with other kids?	1	2	3	4	5
5. Does your child watch TV a lot?	1	2	3	4	5
6. Is it hard for your child to make friends at school?	1	2	3	4	5
7. Does your child like school?	1	2	3	4	5
8. Does your child have lots of friends at school?	1	2	3	4	5
9. Does your child feel alone at school?	1	2	3	4	5
10. Can your child find a friend when s/he needs one?	1	2	3	4	5
11. Does your child play sports a lot?	1	2	3	4	5
12. Is it hard to get kids in school like your child?	1	2	3	4	5
13. Does your child like science?	1	2	3	4	5
14. Does your child have kids to play with at school?	1	2	3	4	5
15. Does your child like music?	1	2	3	4	5
16. Does your child get along with other kids at school?	1	2	3	4	5
17. Does your child feel left out of things at school?	1	2	3	4	5
18. Are there kids your child can go to when s/he needs help at school?	1	2	3	4	5

19. Does your child like to paint and draw?	1	2	3	4	5
20. Is it hard for your child to get along with the kids at school?	1	2	3	4	5
21. Is your child lonely at school?	1	2	3	4	5
22. Do the kids at school like your child?	1	2	3	4	5
23. Does your child like playing card games?	1	2	3	4	5
24. Does your child have friends at school?	1	2	3	4	5