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Examining the Association Between Peer Rejection, Loneliness, and Depressive Symptoms in Children and Adolescents

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EXAMINING THE ASSOCIATION BETWEEN PEER REJECTION, LONELINESS,

AND DEPRESSIVE SYMPTOMS IN CHILDREN AND ADOLESCENTS

A Dissertation

Submitted to the School of Education

Duquesne University

In partial fulfillment of the requirements for

the degree of Doctor of Philosophy

By

Beth A. Whipple, M.S. Ed.

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EXAMINING THE ASSOCIATION BETWEEN PEER REJECTION, LONELINESS,
AND DEPRESSIVE SYMPTOMS IN CHILDREN AND ADOLESCENTS

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ABSTRACT

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Dissertation supervised by Laura M. Crothers, D.Ed.

Although positive peer relations play a significant role in children's development, not all children are accepted by peers. Peer rejection can have a tremendous impact on children's lives and future adjustment. This study took a closer look at the experience of loneliness in children and adolescents. The stability of loneliness as well as the presence of depressive symptoms was explored. The study also examined if rejected children vary in their experience of loneliness and depression. Results indicate that withdrawn rejected children reported a higher degree of loneliness than aggressive rejected children over time. Analyses also provided evidence of the connection between loneliness and depression.

DEDICATION

I dedicate this work to my daughters whose smiles, hugs, and kisses
remind me what is truly important in life.

ACKNOWLEDGEMENTS

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CHAPTER I

Introduction

The early school years are a crucial time in a child's social development. As children increase their interactions with peers, they develop important social skills that set the stage for their future relationships and adjustment. Peer relationships also promote the development of critical cognitive skills and self-concept (Parker, Rubin, Price, & DeRosier, 1995). Sadly, some children lack positive peer relationships and thus do not reap the benefits of socializing with peers who accept them. These children may dread social interactions instead of enjoying them. Negative peer experiences may have damaging outcomes such as internalizing and externalizing behavior problems. Rejection by peers can also negatively influence school attitude, achievement, and attendance. Therefore, the importance of positive peer relations during childhood cannot be underestimated and the impact of peer rejection upon children's academic and social development must be acknowledged.

Despite the vast research supporting the influence of peer rejection on adjustment, the underlying processes of this link are less understood. In a quest to better comprehend why some children and adolescents are impacted more than others, some attention has been focused upon the internal experiences of peer rejection. Although internalizing behaviors (i.e., shyness, social withdrawal, and depression) may contribute to peer rejection (Boivin, Poulin, & Vitaro, 1994; Rubin, LeMare, & Lollis, 1990), internalizing problems such as loneliness and depression may also result from peer difficulties (Boivin, Hymel, & Bukowski, 1995; Parker et al., 1995). Thus, peer rejection can be viewed as a contributor to later internalizing adjustment problems. Research has suggested that the

experience of loneliness may explain why children and adolescents react to rejection differently (Fontaine et al., 2009). Children as young as five and six years of age have been found to not only possess an understanding of loneliness, but also report experiencing it as well (Asher, Parkhurst, Hymel, & Williams, 1990). Despite the presence of loneliness at such a young age, few studies have examined the stability of loneliness in children and adolescents. Some studies have found a direct relationship between loneliness and depressive symptoms in children and adolescents (Boivin et al., 1995; Fontaine et al., 2009). Therefore, depression may be a potential outcome of a child who experiences loneliness over a long period of time. Due to the evidence that depression is becoming more common among young people (Birmaher et al., 1996a; Garber, 2000), actually increasing with each successive generation (Birmaher, Brent, & Benson, 1998), further examination of the interrelationship between peer rejection, loneliness, and depression in children and adolescents is warranted.

Children's Peer Acceptance

Peer acceptance is the degree to which a child is liked or accepted by peers (Rubin, Bukowski, & Parker, 1998). Several sources (i.e., children, peers, teachers, parents) can be utilized to assess children's status among peers. Although each source provides unique information, there are also drawbacks unique to each. For instance, while peers are a critical source when assessing peer acceptance, there are ethical concerns regarding the methods of collecting this information (i.e., sociometric techniques such as peer nominations). One belief is that when children are asked to rate their peers, their feelings and peer interactions are impacted. Conversely, research has shown that sociometrics do not increase negative interactions with less accepted peers or

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contribute to feelings of loneliness and unhappiness following participation (Hymel, Vaillancourt, McDougall, Renshaw, 2002). Input from parents and teachers can be gathered by having these individuals complete rating scales such as The Pictorial Scale of Perceived Competence and Social Acceptance for Young Children - Teacher Ratings Scale (Harter & Pike, 1984). Although adult input may be informative, such data may not accurately describe how a child is seen by peers. Parents may overestimate their children's peer acceptance due to a social desirability bias (Bell-Dolan, Foster, & Christopher, 1995). Teachers' viewpoints may be biased and reflect the teacher-child relationship or the child's classroom behavior (Parker & Asher, 1987). Observations of children's peer interactions in classrooms and playgrounds may give insight into a child's peer status (Ladd, Price, & Hart, 1988). However, as with previous sources, observations also present some disadvantages. Two disadvantages are that they must be conducted on several occasions in order to develop a baseline of behavior, and inter-rater reliability is difficult to obtain without training (Martin, 1986). Lastly, children appear to be essential informants of their own peer status. Their input can be gathered through the use of rating scales such as The Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (Harter & Pike, 1984).

Over the years, various classification systems have been developed to categorize children's peer acceptance (Coie & Dodge, 1983; Coie, Dodge, & Coppotelli, 1982). Despite the differences in how scores are calculated and interpreted, all of these classification systems have been useful in classifying children's status among peers. The most common categories for defining peer status are popular, rejected (aggressive or

withdrawn), neglected, and controversial. Each label connotes a unique set of characteristics that distinguishes it from other categorizations.

Popular children. Popular children are most liked by peers. These children possess positive social traits and display positive social actions that are characteristic of positive social interactions (Newcomb, Bukowski, & Pattee, 1993). Popular children are sociable, cooperative, helpful, and possess leadership skills (Rubin et al., 1998). Although these children can be assertive, they seldom exhibit aggression or disruptive behavior (Newcomb et al., 1993).

Rejected children. Socially rejected children are disliked by peers (Coie et al., 1982) for various reasons and no two rejected children possess the exact same characteristics. However, socially rejected children are often characterized as either aggressive or withdrawn (Boivin et al., 1995). Aggressive rejected children are often easily identified due to their negative and aggressive behavior toward other children (Coie, 1990). This behavior often causes other children to avoid them, which may exacerbate the child's negative behavior, thereby causing greater peer rejection. Consequently, a vicious cycle of peer rejection is perpetuated. Withdrawn rejected children may be rejected by peers for various reasons, such as atypical characteristics, social anxiety, and immature and insensitive behavior (Bierman, 2004). These children are neglected by peers and suffer from a lack of peer relationships (Margolin, 2001). Research has shown that withdrawn rejected children tend to experience internalizing problems (Deckard, 2001; Rubin et al., 1990; Rubin et al., 1998), and have lower self-concepts than non-rejected peers (Vershueren & Marcoen, 2002). Rejected children have difficulty improving their peer status (Coie & Dodge, 1983; Newcomb & Bukowski,

1983) and tend to maintain their status over years (Ollendick, Weist, Borden, & Greene, 1992).

Neglected children. Children are considered neglected by their peers when they are considered neither liked nor disliked (Coie et al., 1982; Margolin, 2001). Neglected children tend to be less sociable, aggressive, and disruptive than other children (Newcomb et al., 1993). They do not appear to be depressed about their status (Crick & Ladd, 1993; Newcomb et al., 1993) and do not experience adjustment problems (French & Waas, 1985; Rubin et al., 1990). One explanation for these findings may be that neglected children may have friends outside of their peer group (Bell-Dolan et al., 1995). Research has shown that this sociometric group lacks stability (Coie et al., 1982; Newcomb & Bukowski, 1983) and neglected children are more likely than rejected children to improve their peer status (Cillessen, Van Ijzendoorn, Van Lieshout, & Hartup, 1992b).

Controversial children. Children who appear to have qualities of both rejected and popular children are considered to be controversial (Rubin et al., 1998). Although they appear to possess social skills similar to those of popular children (i.e., helpful, sociable, cooperative; Coie & Dodge, 1988), they are disruptive, aggressive, and easily angered, often requiring reprimands from adults (Coie, Dodge, & Kupersmidt, 1990). Controversial children tend to be happy with their social status (Crick & Ladd, 1993; Newcomb et al., 1993). Similar to neglected status, this status group appears to have limited stability and typically includes few children.

Peer Relationship Problems

The exact cause of peer relationship problems is often difficult to determine due to the various factors that may be contributing to the problems as well as the transactional relationship between the factors and peer rejection (Parker et al., 1995). These factors can be categorized into two groups: characteristics of the rejected child and the peer group.

Rejected child. Research has concluded that social behavior, psychopathology, atypical characteristics, and family issues are contributors to peer rejection. In terms of social behavior, rejected children may lack or not utilize prosocial and cooperative behaviors (Bierman, 2004). Instead, such children may engage in aggressive and disruptive behavior that drives peers away and spurs peer rejection (Campbell, 2002). Some children may be anxious in social situations and try to avoid peer interaction, which also leads to peer neglect (Rubin et al., 1990). Children are also rejected when they behave immaturely, by whining, pouting, or depending on adults too much (Bierman, 2004). Lastly, some children find peer interactions to be anxiety provoking and thus avoid these interactions.

Psychopathology may also play a role in peer rejection. Children with various disorders (i.e., Pervasive Developmental Disorders, Attention-Deficit/Hyperactivity Disorder (ADHD), and Conduct Disorder) may lack appropriate social skills, have no desire to interact with others, or may drive peers away through behaviors of intimidation or aggression (Parker et al., 1995). Peer difficulties can result from atypical characteristics such as having a physical handicap, belonging to a minority ethnic group (Coie et al., 1982), or being the new child in the classroom or neighborhood. Family

problems can also contribute to peer relationship difficulties. For instance, poverty, parental unemployment, marital conflict, and parental psychopathology can impact parent and child interactions, which then influence the children's peer interactions (Parker et al., 1995).

Peers. Peers can be responsible for peer rejection and how that rejection impacts the rejected children (Bierman, 2004; Campbell, 2002). Bierman (2004) discusses ways in which peers play a role in peer rejection. First, peers may tease a rejected child and provoke him or her to react in negative ways, such as becoming aggressive. The aggressive behavior may then put an end to the teasing and be reinforced. Second, peers may limit the social opportunities available to rejected children, hindering their ability to develop important social skills necessary for positive peer interactions. Consequently, rejected children may be forced to interact with peers of similar status who may not be good role models (Bierman, 2004). Third, peers develop reputational biases about rejected children that influence how others treat and perceive these children's behavior. As a result of negative reputations, rejected children are ignored (Dodge, 1983; Hymel, Wagner, & Butler, 1990b) or become victims of verbal and physical aggression (Perry, Kusel, & Perry, 1988).

Effects of Peer Relationship Problems

Peer difficulties can influence various aspects of a child's life. Children's social behavior may be affected, which can also impact their current and future relationships. For instance, rejected children may display negative social behavior that cause peer relationship difficulties. As a result, they have fewer opportunities to experience positive peer relationships and a greater likelihood of negative peer interactions in the future

(Parker & Asher, 1987). Some rejected children may feel uncomfortable around peers and be un-motivated or feel lack of confidence in approaching and interacting with others (Bierman, 2004). Children's self-esteem and self-confidence may also suffer from peer difficulties (Hartup, 1992). Children with poor peer relations and negative social reputations tend to have lower self-confidence (Coie, 1990) and feel less socially competent than more accepted children (Bierman, 2004). Peer rejection may lead to internalizing problems (Rubin et al., 1990) such as loneliness, anxiety, or depression (Boivin et al., 1995; Parker et al., 1995). These problems tend to occur more often in rejected girls (Bell-Dolan et al., 1995) and withdrawn rejected children (Deckard, 2001; Rubin et al., 1998). Peer rejection may also lead to externalizing problems such as substance abuse, delinquency, and school dropout (Parker et al., 1995). Last, but not least, peer problems can decrease school interest (Birch & Ladd, 1996), school attendance (Ladd, 1990), and grades, and result in school dropout (Ollendick et al., 1992).

Loneliness

Although loneliness was once thought to be only experienced by adolescents and adults, research has provided evidence that children understand and experience loneliness (Asher et al., 1990; Cassidy & Asher, 1992). For instance, Asher, Hymel, and Renshaw (1984) found that at least 10% of elementary school aged children reported feeling lonely either always or most of the time. Despite this alarming finding, few studies have examined loneliness in children aged 6 to 10 (Berguno, Leroux, McAinsh, & Shaikh, 2004). The causes of loneliness are likely many; among these, loneliness may stem from having few or no friends or suffering the loss of a significant person (Asher & Paquette,

2003). Other causes of loneliness include rejection, low social acceptance, and difficulty

making friends (Asher et al., 1990; Parker & Asher, 1993).

Rejected children express greater loneliness than children who belong to other

peer status groups (Asher et al., 1984; Asher & Wheeler, 1985; Cassidy & Asher, 1992;

Crick & Ladd, 1993; Parkhurst & Asher, 1992). These findings are consistent over

studies involving children of various ages (i.e., kindergarten to middle school; Asher et

al., 1990). Differences in loneliness among rejected children may be attributed to factors

such as the degree and chronicity of rejection, presence of friends, attributions regarding

the rejection, and willingness to admit feelings of loneliness (Asher et al., 1990).

Withdrawn rejected children tend to report greater loneliness than aggressive rejected

children (Boivin & Hymel, 1997; Patterson, Kupersmidt, & Griesler, 1990).

Lonely children may experience feelings of sadness, malaise, boredom, and

alienation (Bullock, 1998). They tend to believe that they caused their peer difficulties

(Hymel & Franke, 1985), so their self-esteem may suffer (Bullock, 1998). They may also

feel helpless and give up on changing their peer difficulties (Hymel & Franke, 1985),

which may deprive them of the benefits of peer interactions and relationships (Bullock,

1998). Lastly, lonely children may begin experiencing depressive symptoms (Boivin et

al., 1995).

Loneliness can be assessed in children through various means. During

observations of children's interactions, children may display signs of loneliness such as

anxiety, sadness, timidness, and lack of interest in surroundings (Bullock, 1998).

Informal discussions with children may be beneficial and should involve questions such

as "What does sad and lonely mean?", "Are you sad and lonely?", and "What would

make you happier?" (Cassidy & Asher, 1992). Self-report measures are particularly useful in examining loneliness in children, and research has shown that children can reliably respond appropriately to self-report measures of loneliness (e.g., Asher et al., 1984).

Depression in Childhood and Adolescence

Over the past thirty years, research has emerged confirming that children do experience depression. Alarmingly, depression is becoming more prevalent among young people (Birmaher et al., 1996a; Garber, 2000) and is increasing with every successive generation (Birmaher et al., 1998). The mean age of onset is approximately eleven years of age (Kovacs, Obrosky, Gatsonis, & Richards, 1997), and the rate increases as children enter adolescence (Fleming & Offord, 1990). Depression may manifest itself in different ways in children and adolescents, depending on the youth's developmental level (Birmaher et al., 1998) and how long the depression has been present (Kovacs, 1996).

Although most children and adolescents recover from their depression within eight to nine months (Kovacs et al., 1997; McCauley et al., 1993), there is a high probability of recurrence (Kovacs, 1996; Lewinsohn, Clarke, Seeley, & Rhode, 1994; McGee & Williams, 1988; Sanford et al., 1995). There are many theories regarding the etiology of depression in children and adolescence. Genetics, psychopathology, familial factors (e.g., parental psychopathology, early-onset mood disorders), and psychosocial factors (e.g., poor support, stressful life events) have all been linked with depression (Birmaher et al., 1996a; Garber, 2000).

Depression in childhood and adolescence can impact the lives of children and adolescents in several ways. Their social and emotional development may be stunted and relationships with others may be influenced negatively (Birmaher et al., 1998). Depression is likely to recur in the future (Kovacs, 1996; Lewinsohn et al., 1994; McGee & Williams, 1988; Sanford et al., 1995) and some children and adolescence with depression may later develop bipolar disorder (Birmaher et al., 1998). Lastly, other outcomes of depression include suicide, substance abuse, and pregnancy at an early age (Birmaher et al., 1998).

Depression in children and adolescents can be assessed through several means. Input from children, their parents, and their teachers can be beneficial in gathering information about the presence of depression. Psychiatric symptom checklists based on the depression criteria in the Diagnostic and Statistic Manual for Mental Disorders – Fourth Edition (Text Revision; DSM-IV-TR) have been found to be useful. Of most relevance, two rating scales have been developed for use with children. The Child Depression Inventory, developed by Kovacs, assesses the cognitive, affective, and behavioral signs of depression in school age children and adolescents from seven to seventeen years of age (Kovacs, 1992). The Reynolds Child Depression Scale is designed for children ranging from eight to twelve years of age (Reynolds, 1989). For adolescents, common rating scales include The Beck Depression Inventory-Second Edition (Beck, Steer, & Brown, 1996) and Reynolds Adolescent Depression Scale (Reynolds, 1986).

Statement of the Problem

The tremendous impact of peer rejection on children's lives cannot be ignored or underestimated. Peer difficulties can affect current and future relationships, self-concept, and school performance. Peer problems may even have the potential to result in psychopathology. Due to the detrimental effects of peer rejection, it is important to try to better understand the underlying processes that contribute to these problems and why some children and adolescents are impacted more than others. Otherwise, appropriate interventions cannot be identified and provided. A closer examination of loneliness may explain the differences among reactions to rejection and later adjustment. According to the extant source literature, children as young as five and six years of age not only possess an understanding of loneliness, but also experience the symptoms of loneliness (Asher et al., 1990). The finding that at least 10% of elementary school aged children reported feeling lonely either always or most of the time (Asher et al., 1984) is alarming, particularly since it is unknown if these children continue to experience these feelings in the future.

Research has shown that peer relationship problems can lead to internalizing problems such as loneliness, anxiety, or depression (Boivin et al., 1995; Parker et al., 1995). Thus, it is possible that a child who experiences loneliness over several years may experience depressive symptoms, as well. Due to the evidence that depression is becoming more common among young people (Birmaher et al., 1996a; Garber, 2000) and is increasing with every successive generation (Birmaher et al., 1998), further examination of loneliness and depression in children and adolescents is warranted.

Purpose of Study

The purpose of the current study was to better understand how children and adolescents are impacted by peer rejection by examining the connection between peer rejection, loneliness, and depressive symptoms. The study was based on the developmental psychopathology model that characterizes maladjustment as externalizing and internalizing behavioral difficulties (Rubin & Mills, 1991). The research on externalizing problems such as aggression and impulsivity is extensive for various reasons (Rubin & Mills, 1991). One reason is that externalizing difficulties involve overt behaviors that are noticeable at young ages and require immediate intervention. In addition, externalizing behaviors tend to remain stable over time, so they cannot be ignored. Thus, much research has been devoted to studying externalizing difficulties.

Unfortunately, research on internalizing difficulties, such as loneliness and depression in childhood does not have such a rich or extensive history. In fact, early researchers did not believe that children experienced internalizing problems such as loneliness. For instance, Harry Stack Sullivan (1953) and Weiss (1973) believed that children could not experience loneliness until early adolescence when they developed the need for intimacy in the context of a close friendship and the desire to form relationships with others besides one's parents (Asher & Hopmeyer, 1997). Even when research emerged contradicting this view, researchers felt that these problems were only temporary and not a risk factor for future maladjustment (Rubin & Mills, 1988). Over the past thirty years, studies have provided more evidence that children experience loneliness (Asher et al., 1984; Berguno et al., 2004) and depression (Birmaher et al., 1996a; Garber, 2000). These findings have led to an impetus to examine loneliness and

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depression in children and adolescents. Thus, the primary focus of this study was internalizing difficulties, particularly loneliness and depression.

Research Questions and Hypotheses

The first research question assessed the stability of loneliness across developmental periods. Gender differences and rejection group differences in loneliness at time 1 (grade 3), time 2 (grade 5), time 3 (age 15) were examined. It was expected that loneliness would persist and increase over time. Significant differences were expected among aggressive rejected and withdrawn rejected groups. It was hypothesized that withdrawn rejected children would experience greater loneliness than aggressive rejected children.

The second research question explored if there was a relationship between loneliness and depressive symptoms. First, participants' loneliness scores from third grade and fifth grade were used to predict depression at fifth grade. Next, loneliness scores from fifth grade and age 15 were used to predict depression at age 15. It was predicted that participants who experienced loneliness would also report depressive symptoms.

Summary

Peer relationships play an integral role in a child's development. Without positive peer interactions and acceptance by peers, a child lacks the opportunity to develop important social skills that are necessary for future relationships and adjustment. In addition, when a child suffers from poor peer relationships, he or she may begin exhibiting internalizing and externalizing behavior problems as well as develop academic

problems (i.e., negative school attitude, low academic performance, poor attendance). Thus, the impact of peer rejection must be acknowledged and addressed.

Although several research studies have provided evidence of the influence of peer rejection on adjustment, the underlying processes of this link is not as explicit. Researchers, who have focused on the internal experiences of peer rejection, have suggested that the presence of loneliness may explain why some children and adolescents are impacted more than others. For instance, loneliness appears to be understood and experienced by children as young as five years of age (Asher et al., 1990).

Unfortunately, few studies have examined the stability of loneliness in children and adolescents. Several studies have determined that depression is becoming increasingly more common among young children (Birmaher et al., 1996a; Garber, 2000). Therefore, depression may be a potential outcome of a child who experiences loneliness over a long period of time (Boivin et al., 1995; Fontaine et al., 2009). In an effort to better understand the impact of peer rejection on children and adolescents, the current study investigated the connection between peer rejection, loneliness, and depression.

CHAPTER II

Literature Review

Historical Background

For the past century, scientific interest and research on peer relationships has grown tremendously. In an extensive literature review on peer interactions and relationships, Rubin and colleagues (1998) acknowledged their difficulty in summarizing so many studies. The emergence of this research dates back to the early 1900's when Child Welfare Research Stations were developed to examine children's behaviors, peer interactions, and relationships.

Unfortunately, when the Second World War began, the number of research personnel was reduced and peer relationship research diminished. After the war, research efforts focused upon improving the cognitive and academic abilities of children to keep up with the advancements of other countries. In the 1960's and 1970's, preschool and day care centers became more popular as a way to prepare children for formal school. Although the intent of these centers was academic in nature, their growth led to an increased focus on peer relationships because children were spending more time with their peers at earlier ages. By the 1980's, the importance of peers was supported by numerous studies, yet researchers continued to strive to improve methodological and statistical techniques for understanding peer interactions and relationships. Sociometry became an area of interest with the intent of defining sociometric groups based on sociometric status. Once formal procedures were established to measure children's peer acceptance, studies emerged on the characteristics of these groups in relation to peer acceptance and rejection. Researchers then turned their attention to studying children's

unique peer experiences in order to better understand the antecedents and consequences of peer experiences. Over the past three decades, research on the impact of peers on adjustment has proliferated. Most recently, the focal point of studies has been on children's internal experiences of peer rejection (Sandstrom & Zakriski, 2004). Various researchers have provided support that peer difficulties lead to internal distress such as poor self-esteem, loneliness, and depression in children and adolescents (Boivin & Hymel, 1997; Panak & Garber, 1992; Renshaw & Brown, 1993).

The connection between problems with peers and later maladjustment has been supported by research for several years. However, the understanding of this link continues to be a hot topic among researchers. In Parker and Asher's 1987 review of peer research, they discussed two models for how researchers were attempting to understand the relation between early peer relationships and adjustment. In the causal model, early peer interactions play a significant role in children's development and adjustment. Therefore, if a child has negative peer experiences and does not reap the benefits of positive peer relationships, their development is impacted and adjustment problems may result. Thus, peer rejection is viewed as a contributor to later adjustment problems.

The incidental model suggests that peer interactions do not directly cause later problems, but rather occur incidentally as problem behaviors persist across development. Troubled peer relationships are believed to simply be a by-product of a problem behavior or deficit. Although studies have been influenced by these two models, they have not been sufficient in understanding how poor peer relations impact future adjustment.

A transactional model has recently become prominent among researchers. Based on this perspective, maladjustment is caused by transactions between child characteristics

and environmental factors that influence one another (Parker et al., 1995). For instance, Parker et al. (1995) explain how peer rejection might impact the child's self-concept which then might negatively influence his or her behavior towards peers. Peers might then respond in a negative manner which fuels the destructive cycle. As the research on peer rejection and adjustment continues to grow, researchers continue to develop models in an effort to better understand new findings.

Children's Peer Relationships

  Importance of peer relationships. Today's children spend a significant amount of their time with their peers. Children are entering day care centers at earlier ages and more are attending preschool programs which result in increased time with peers at younger ages (Asher, 1990). In addition, membership in clubs, sports, and camps is popular for children and adolescents and allow them more peer interaction (Asher, 1990). Peers are important to all individuals regardless of age; however they are especially important to children and adolescents. Peer relationships contribute to their development in several ways (Ladd & Coleman, 1993).

  Peers are crucial to children's social development (Hartup, 1983; Rubin et al., 1998). The peer group sets the norms or standards of behavior (Asher, 1978). Through peer interactions, children learn important social skills such as cooperation, sharing, controlling aggression, helping, and conflict resolution skills (Hartup, 1989; Rubin et al., 1998). Peer interactions and relationships also provide the context for the socialization of gender roles (Hartup, 1989) and moral development (Parker et al., 1995).

  Children also help one another with their cognitive development by solving problems together that neither could solve on his or her own (Parker, et al., 1995). These

interactions can then promote problem solving, language skills, academic achievement, and scientific and logical reasoning. Piaget (1932) suggested that children feel more comfortable sharing their thoughts with peers because of their equal status (Rubin et al., 1998). He believed that when peers express their ideas and discuss conflicting opinions, they develop perceptive taking skills.

Peer relationships can contribute to how children feel about themselves (Parker et al., 1995). Researchers such as Mead (1934) suggested that one's self-concept is based on how one perceives he or she is viewed by others (Rubin et al., 1998). According to Mead, an individual learns how to self reflect, consider himself or herself in relation to others, and understand others' perspectives through peer interactions. If children lack peer interactions, they may be less able to develop accurate perceptions of themselves (Cillessen & Bellmore, 1999) because they do not have a basis from which to perceive themselves. In addition, negative peer interactions may lead to the development of a negative self-concept (Harter, 1998). During middle childhood, children begin comparing themselves to others and their self-concept is impacted by their peer acceptance.

Development of peer relationships. During infancy and toddlerhood, the beginnings of peer relations are evident. Around six months of age, infants start to show interest in other infants through smiling, vocalizing, and reaching towards them (Parker et al., 1995). As infants are close to a year old, they observe and imitate each other's actions (Parker et al., 1995) as well as display the beginnings of prosocial behavior (Hay, Payne, & Chadwick, 2004). When toddlers begin to move around and increase their expressive communication skills, their peer interactions become more complex and are characterized

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by reciprocal imitation (Rubin et al., 1998). Toddlers also appear to demonstrate turn taking skills in which they take turns observing and then responding to each other (Rubin et al., 1998). Between the ages of two and three, children start interacting in reciprocal play (Ladd & Coleman, 1993). Thus, children make significant strides in peer relationships during infancy and toddlerhood.

As children enter the preschool years, they begin to spend more time interacting with peers and engaging in cooperative activities such as pretend play. Although they start interacting with peers more, they may continue to engage in solitary activity and parallel play, which is typical (Hartup, 1992). Through increased peer interactions, preschoolers begin to develop relationships with each other, and peer acceptance and friendships become important (Ladd & Coleman, 1993). By four and five years of age, children can identify their friends whom can also be identified by parents and teachers (Hartup, 1992). Many important relationship processes begin to develop through preschoolers' interactions and relationships including sharing, turn taking, and cooperation. The development of these processes establishes the foundation for children's future relationships. Positive peer relations during this age appear to be related to positive adjustment in kindergarten and academic success in later grades (Ladd, 1990). Research suggests that children who lack appropriate peer interactions during the preschool years and experience loneliness early in their social development may have future adjustment problems (Asher et al., 1990; Parker & Asher, 1987).

Children begin to develop reputations as early as the preschool years and these reputations become more important to peers in deciding a child's likability rather than the child's social behavior (Denham & Holt, 1993). As early as 45 months of age, children

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appear to begin to develop stable reputations that are difficult to change (Denham & Holt, 1993). Reputational biases may be common among younger children because of the way they are apt to view others. Children who are under the age of seven tend to view others as either good or bad and do not understand how others can have both positive and negative qualities (Bierman, 2004). Therefore, positive peer relations and peer acceptance play an important role during the preschool years.

As children enter school and are exposed to more peers, they become selective with whom they interact (i.e., same sex relationships become more common) and are more concerned about their peer acceptance (Rubin et al., 1998). The desire to belong to a peer group emerges and becomes a priority. Through the development of peer groups, children learn important skills such as cooperation and loyalty. Children who do not conform to the group norms are not tolerated and bullying begins to occur (Rubin et al., 1998). During middle childhood, children start to develop more stable friendships and their social position is less likely to change (Bierman, 2004).

In the adolescent years, youth spend more time with peers than adults (Hartup, 1983) and become more intimate with peers (Parker et al., 1995). They turn to their friends for support as they try to identify their sense of self (Bierman, 2004). Peer groups become more exclusive based on interests and academic achievements and aspirations (Hay et al., 2004). Cliques become more common and initially only involve children of the same sex. In early adolescence, being accepted into these cliques and conforming to the group's standards are of utmost importance. As adolescents become older, the cliques are comprised of males and females and dating occurs (Hartup, 1983). By later

adolescence, group acceptance becomes less important than individual intimate relationships with others, especially for girls (Parker et al., 1995; Rubin et al., 1998).

Peer Group Acceptance

Peer acceptance is the degree to which a child is liked or accepted by peers (Rubin et al., 1998). This "group referent" construct focuses on the peer group as a whole (Parker et al., 1995) and describes the central tendency of a peer group's liking for a child (Asher, Parker, & Walker, 1996). Thus, a child's acceptance is not determined by a single child in the peer group, but rather the group as a whole. Peer acceptance is considered a unilateral construct because how the focal child feels about his peers is not relevant and his peer acceptance can be determined without his input (Asher et al., 1996).

It is important to distinguish between peer acceptance and friendships because they are different ways to examine peer adjustment. Although a child may be considered to be accepted or rejected by peers, this does not imply that the child does / does not have friends. Friendships are dyadic, reciprocal relationships characterized by mutual affection (Bierman, 2004). In regards to sociometrics, a friendship is often defined when two children both identify themselves as friends (Asher & Paquette, 2003). With friendships, both the source and nature of the peer's viewpoint is important (Asher et al., 1996). As opposed to acceptance, the focal child's input is crucial (Asher et al., 1996).

Assessment of peer acceptance. In order to accurately assess children's peer status, various sources should be used for a number of reasons. First, because children may view their social status differently than others do, their viewpoint may not be accurate. Peers' opinions are critical to obtain when trying to determine a child's peer status. Although adults may be informative about a child's peer status, they are merely

observers who may not fully understand how this child is actually seen by peers. Lastly, observations of children's peer interactions can be useful. Each of these sources is helpful in gaining a better understanding of a child's peer status.

Peers. Needless to say, peers are important sources when assessing a child's peer status. They are responsible for determining a child's acceptance within the peer group. Sociometrics are a common, useful way to obtain this information and have proven to provide reliable and valid ratings of children's peer acceptance (Asher & Hymel, 1981). However, their ethical use continues to be questioned because some feel that asking children to rate their peers is detrimental to their peer interactions or feelings after participating. Despite this belief, research has shown that sociometrics do not increase negative interactions with less accepted peers or contribute to feelings of loneliness and unhappiness following testing (Hymel et al., 2002). Sociometrics can be conducted in a variety of ways. One way is to ask children to nominate other children that they like/dislike. The nominations are then calculated into acceptance or rejection scores (Hymel & Rubin, 1985). Another sociometric method is to ask children to rate other children in terms of how much they like / dislike them (i.e., using Likert rating scales, pictures of peers). While sociometric rating scales are useful, they fail to distinguish between rejected and neglected children (Hymel & Rubin, 1985). Paired comparisons is another method to use which requires children to evaluate all possible pairs of peers by constantly asking them, "Which person would you rather play with?" (Hymel et al., 2002).

Parents and teachers. There are many ways to ask parents and teachers to comment on a child's peer status. One such way is to have them name the child's

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friends. This information will not only provide an estimate of how many friends a child has, but can also be used to see if parents, teachers, and children are naming the same friends (Hymel et al., 2002). Rating scales such as The Pictorial Scale of Perceived Competence and Social Acceptance for Young Children- Teacher Ratings Scale (Harter & Pike, 1984) can also be utilized. However, parent and teacher ratings may be biased and differ for various reasons. Parents may have fewer opportunities to observe their children interacting with peers which then impact their ratings (Bell-Dolan et al., 1995). Also, parents may overestimate their children's peer acceptance due to a social desirability bias (Bell-Dolan et al., 1995). Teachers' viewpoints may be biased and may be a reflection of the teacher child relationship or the child's classroom behavior (Parker & Asher, 1987). For instance, teachers may be reluctant to rate a socially withdrawn child as rejected if the child is not a problem in class.

   Observations of peer interactions. Children's peer interactions can be observed to get a sense of a child's peer status. For instance, a child's effort to interact with peers and peers' reactions might be behaviors to watch for during observations. In addition, "children's behavior to seek and maintain proximity" with other children might provide insight to a child's peer status (Hymel et al., 2002). Observations can take place in locations such as classrooms and playgrounds (Ladd et al., 1988). Martin (1986) highlights the advantages and disadvantages of observations. One advantage is that they tend to be more reliable and valid than other assessment methods. Observations are particularly useful when assessing young children because the children adapt well to observers and continue to engage in their typical behavior. One drawback to observations is that they must be conducted several times in order to get a baseline.

Another disadvantage of observations is that inter-rater reliability is difficult to obtain unless training is involved.

 Self-report. Children's perceptions of their peer acceptance may be a key to better understanding the various ways in which children are impacted by and react to their peer acceptance (Cillessen, 1997; Crick & Ladd, 1993; Hymel, Franke, & Freigang, 1985; Rabiner & Keane, 1993). If rejected children perceive they are not accepted by others, internalizing or externalizing problems may result. Some children may turn it internally causing loneliness and depression while others may become aggressive towards peers. Cillessen (1997) found that children's peer relations and later adjustment were mediated by their perceptions. Self-perceptions played a mediating role in internalizing problems. Thus, children's perceptions of their peer acceptance, rather than their actual status among peers, may help clarify why children are affected by and respond to peer rejection differently. In addition, the accuracy of children's perceptions is also crucial to examine because children may perceive their peer status differently than their peers report it to be (Phillipsen, Bridges, McLemore, & Saponaro, 1999). Studies have shown that some children's views of their peer status differ than those of their peers, parents, and teachers (Phillipsen et al., 1999). Inaccurate perceptions may lead children to engage in inappropriate behavior which may drive peers away (Cillessen & Bellmore, 1999). Various assessment methods have been developed to examine children's perceptions of their peer acceptance (i.e., The Pictorial Scale of Perceived Competence and Social Acceptance for Young Children ; Harter & Pike, 1984).

 Classification of children's peer acceptance. Over the years, various sociometric classification systems have been developed to categorize children's peer

acceptance. Prior to the 1980's, peer relations studies utilized unidimensional sociometric classification systems that categorized children into two groups: popular and unpopular (Newcomb et al., 1993). Despite the usefulness of these systems, they neglected the fact that there are differences among unpopular children. Although these sociometric systems had the same general purpose of classifying children's status among peers, they differed in how nomination scores or ratings were calculated and interpreted (Asher, 1990).

In response to the weaknesses of the early classification systems, two dimensional classification systems were developed and focused on social preference and social impact. Perry (1979) developed a classification system in which he defined social preference (social likability) as the degree to which children are liked or disliked by peers, and social impact as the extent to which children are noticed by their peers (Newcomb et al., 1993). Based on his system, social preference is measured by the difference between the amount of times a child is chosen as liked and the amount of times he is chosen as disliked (Rubin et al., 1998). Social impact is determined by the amount of positive and negative nominations the child receives (Rubin et al., 1998). Perry's system allowed children to be classified as one of four groups:

1) Popular- above the mean in impact and preference

2) Rejected- above the mean in impact and below it in preference

3) Amiable- below the mean in impact and above it in preference

4) Isolated- below the mean in impact and preference (Rubin et al., 1998).

Coie and colleagues (1982) developed a sociometric classification model (known as the standard score approach) that defined children's peer acceptance as the number of most liked nominations they received from peers and peer rejection as the number of least

liked nominations received (Newcomb et al., 1993). They standardized these raw scores by grade level as a way to determine children's social preference and social impact (Newcomb et al., 1993). Social preference is determined by the standardized difference of acceptance minus rejection. Social impact is defined as the standardized sum of acceptance plus rejection. A year later, Coie and Dodge (1983) revised their method in order to assess neglected and controversial children. As a result, standardized liked and disliked scores are used to index social impact for popular and rejected children, and standardized liked and disliked scores are used to index social preference for neglected and controversial children (Newcomb et al., 1993).

In summary, various classifications systems have been developed to assess children's status among their peers. Over the years, these systems have evolved from unidimensional systems to bi-dimensional systems and have improved upon one another to accurately measure children's peer acceptance. Although many classification systems exist and differ in how scores are calculated and interpreted, they all have the same intention of classifying children's status among peers.

Characteristics of peer status groups. When determining children's status among peers, various categories can be utilized to define their status. Children tend to be classified in one of the following groups: popular, rejected (aggressive or withdrawn), neglected, and controversial. Typically, children in these groups possess a unique set of characteristics that distinguish them from children in other groups.

Popular children. Popular children are most liked by peers. These children possess positive social traits and demonstrate positive social actions that are characteristic of quality social interactions (Newcomb et al., 1993). For instance, these children are

able to initiate positive interactions with others and respond positively to others who initiate interactions with them (Asher, 1983). Contrary to what one might think, popular children's status is not a result of them approaching others more. Dodge (1983) found that popular children approached others less often, but were approached more frequently. Popular children are sociable, cooperative, helpful, and possess leadership skills (Rubin et al., 1998). Although these children can be assertive, they seldom exhibit aggression or disruptive behavior (Newcomb et al., 1993).

Rejected children. Socially rejected children are disliked by peers (Coie et al., 1982) and considered "at-risk" for difficulties in their social development (Newcomb et al., 1993). They tend to have difficulty improving their peer status (Coie & Dodge, 1983; Newcomb & Bukowski, 1983). When Ollendick et al. (1992) conducted a five year follow-up study of rejected children, they found that these children continued to be less liked by peers in relation to other children. In addition, rejected children appear to maintain their peer status when in new social situations (Ollendick et al., 1992). Although the nature of rejected children's peer difficulties differ as well as their personal characteristics, rejected children are often characterized as either aggressive rejected or withdrawn rejected children (Hymel, Bowker, & Woody, 1993; Parkhurst & Asher, 1992).

Aggressive rejected children are often easily identified and inflict verbal or physical aggression upon other children (Coie, 1990). This behavior often causes other children to avoid them, which may exacerbate the child's negative behavior, thereby, causing more peer rejection. As a result, a vicious cycle of peer rejection is perpetuated. These children may even develop a reputation for their negative behavior, which may

lead to more peer rejection as they become older. Aggressive behavior tends to be associated with peer rejection from early childhood to adolescence (Rubin et al., 1998). However, the type of aggression differs among the age groups. For instance, preschool children tend to exhibit physical aggression over objects and territory in contrast to school age children who are more verbally aggressive (Hartup, 1992).

Although aggressive rejected children are often viewed as socially incompetent and uncooperative with peers and adults (Hymel et al., 1993), they appear to possess more stable friendships than withdrawn rejected children (Cairns, Cairns, Neckerman, Gest, & Louis-Gariepy, 1988). Aggressive rejected children do not report internal distress such as negative social self-perceptions and loneliness (Boivin & Hymel, 1997). They have been found to overestimate their academic, athletic, and social competence (Hymel et al., 1993; Patterson et al., 1990).

Withdrawn children may be ignored by peers in early childhood, but their behavior is viewed as abnormal as they become older. Despite their cooperativeness with adults and peers, they tend to be left out of peer activities (Hymel et al., 1993). Although these children are not aggressive and do not directly drive their peers away from them, upon close observation, it is evident that they are being neglected by their peers and are being affected by their lack of peer relationships (Margolin, 2001). Social withdrawal is usually not the primary reason for rejection by peers, but it is more a combination of solitary behavior accompanied by social anxiety, self-consciousness, and ineptness (Coie, 1990). If these children continue to be overlooked, they may suffer more. For instance, it appears that withdrawn rejected children tend to experience internalizing problems (Deckard, 2001), have lower self-concepts than non-rejected peers (Hymel, Rubin,

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Rowden, & LeMare, 1990a; Vershueren & Marcoen, 2002), and blame themselves for their peer difficulties (Hymel et al. 1993). Compared to aggressive rejected children, these children are more realistic and accurate in their self-perceptions (Hymel et al., 1993).

Neglected children. There is often debate regarding the clearly defined existence of neglected peer status (French & Waas, 1985; Rubin et al., 1990) because children with this status appear to differ little from average children and are difficult to identify (French & Waas, 1985; Rubin et al., 1990). Children are considered neglected by their peers when they are considered neither liked nor disliked (Coie et al., 1982; Margolin, 2001). In terms of nomination methods, they receive few positive or negative nominations. Neglected children tend to be less sociable, aggressive, and disruptive than other children (Newcomb et al., 1993). They do not appear to be depressed about their status (Crick & Ladd, 1993; Newcomb et al., 1993) and do not experience adjustment problems (French & Waas, 1985; Rubin et al., 1990). One explanation for these findings may be that neglected children may have friends outside of their peer group (Bell-Dolan et al., 1995). In fact, research has shown that this sociometric group lacks stability (Coie et al., 1982; Newcomb & Bukowski, 1983) and neglected children are more likely than rejected children to improve their peer status (Cillessen et al., 1992b) by increasing their confidence or interacting with new peer groups (Bierman, 2004; Coie & Kupersmidt, 1983).

There are many speculations regarding the reasons some children are classified as neglected. First, they appear to interact less with others and as a result, their peers may not know them very well and not include them in their nominations (Newcomb et al.,

1993). Second, these children may have friends who are not classmates (Asher, 1983). Lastly, these children may possess appropriate social skills to interact with others, but choose to spend their time alone (Asher, 1983).

Controversial children. Children, who appear to have qualities of both rejected and popular children, are considered to be controversial (Rubin et al., 1998). They are "social butterflies" and appear to possess social skills similar to those of popular children (i.e., helpful, sociable, cooperative; Coie & Dodge, 1988). However, they are disruptive, aggressive (even more than rejected children), and easily angered, often requiring reprimand from adults (Coie et al., 1990). Interestingly, only peers and not adults rate these children as more aggressive and sociable (Coie et al., 1990). One speculation is that these children may only exhibit aggression when adults are not present. In general, controversial children are relatively happy with their social status and do not appear to be distressed about it (Crick & Ladd, 1993; Newcomb et al., 1993). Similar to neglected status, this status group appears to have limited stability and typically includes few children.

Stability of peer status. Studies have determined that the rejected group status has the greatest stability despite gender or race (Coie & Dodge, 1983). Newcomb and Bukowski (1983) used three different classification systems on a group of fourth and fifth graders. The rejected children remained the most stable despite the classification system used. The neglected group was the least stable. When Coie and Dodge (1983) followed the social status of two age group samples of children over a five year period, over 40% of the rejected children identified in fifth grade kept their peer status over five years. In 1987, Ladd and Price found that children's peer acceptance remained consistent from

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preschool until the end of kindergarten. Some studies suggest that rejected children continue to experience difficulties even in new settings with unfamiliar peers (Coie & Dodge, 1983). Neglected and controversial children are not as stable. In fact, in Coie and Dodge's study, the neglected children improved their social status.

Several factors have been identified as contributors to the stability of peer rejection. First, many rejected children are unaware of their peer difficulties (Boivin & Begin, 1989). Children, who are aware of their peer rejection, may not clearly understand why they are not accepted by their peers or how to go about remediating their difficulties (Coie, 1990). Children, who do attempt to change their behavior, may not be successful because their attempts are not received positively by their peers (Hartup, 1992). Once rejected children see that their efforts to engage in more positive social behavior are not welcomed or acknowledged, they may resort to their old behavior or be less motivated to engage in social interactions (Coie, 1990).

Peer Relationship Problems

Contributions to peer difficulties. Determining the exact cause of peer relationship problems is often difficult because many variables may be contributing to the problems. Also, it is difficult to pinpoint with certainty the direction of the relationship between the variables and peer rejection because these variables appear to be transactional and impact one another (Parker et al., 1995). Moreover, a number of these variables can be considered characteristics of the rejected child, such as social behavior, psychopathology, and family issues. The peer group may also be responsible for peer relationship problems. Child characteristics can influence individuals' social situations and those social situations can impact and shape the child's characteristics (Asher, 1983).

Rejected children. Difficulties in peer interactions and relationships are often associated with characteristics of the rejected children themselves. Rubin et al. (1990) proposed two pathways by which children contribute to their peer problems. One pathway describes the child who displays inappropriate and aggressive behavior which then leads to negative peer status. In the second pathway, the child engages in internalizing behaviors (i.e., shyness, social withdrawal) that leads to peer rejection and eventually internalizing problems such as loneliness and depression. Much of the early research endorsed the first pathway, but not the second. However, later studies provided evidence that social withdrawal is associated with adjustment problems particularly in middle to late childhood (Boivin et al., 1994; Hymel et al., 1990a). The following characteristics of rejected children have been found to be related to peer rejection.

Social behavior. It is important to recognize that social behavior is not only a cause of sociometric status, but can also be a consequence as well (Asher, 1983). Although it is often difficult to exactly determine whether children's sociometric status causes their behavior problems or vice versa (Asher, 1983), rejected children often show at least one of the following types of social behavior that are commonly linked with peer rejection (Bierman, Smoot, & Aumiller, 1993).

First, rejected children may lack or choose not to use prosocial and cooperative behavior such as sharing, communicating effectively, and possessing social awareness (Bierman, 2004; Dodge, 1983). Rejected children may argue (Ladd et al., 1988) or display aggressive and disruptive behavior that drives peers away and spurs peer rejection (Campbell, 2002; Hymel et al., 1990a), especially among young children (Hartup, 1992). This rejection then exacerbates the rejected children's negative attitudes towards others

leading them to continue their behavior that they feel is "justified" (Coie & Dodge, 1998). Peers also reject children when they behave immaturely such as whining, pouting, or depending on adults too much (Bierman, 2004). Lastly, some children find peer interactions to be anxiety provoking and avoid these interactions. Thus, their peers never have an opportunity to interact with them and as a result, end up rejecting them (Rubin et al., 1990). Studies have shown that social withdrawal is related to peer rejection more as children become older (Hymel et al., 1990a).

Psychopathology. Various disorders such as Pervasive Developmental Disorders, ADHD, and Conduct Disorder may contribute to peer relationship problems (Parker & Asher, 1987). Children with these disorders may lack appropriate social skills, have no desire to interact with others, or may drive peers away through behaviors of intimidation or aggression. For instance, a child with ADHD may become a victim of peer rejection due to his or her inattention, hyperactivity, and impulsivity.

Atypical characteristics. Since the saying, "birds of a feather flock together" appears to be true for children's relationships, it is understandable how children with atypical characteristics often face peer rejection because they differ from the other children in some manner. Atypical characteristics could be having a physical handicap, belonging to a minority ethnic group (Coie et al., 1982), or being the new child in the classroom or neighborhood. Sadly, some children may be rejected because their physical appearance is unattractive (Bierman, 2004).

Family issues. Children's peer relationship difficulties may also be related to problems at home. Family problems can include poverty, parental unemployment, marital conflict, and parental psychopathology (Parker et al., 1995). These problems

appear to negatively affect parents' behaviors with their children, which then influence children's peer interactions (Parker et al., 1995). Children's lack of positive attachment with caregivers can also contribute to their rejection by peers because these early attachments set the stage for children's future relationships (Parker et al., 1995). For example, infants with secure attachments tend to be more popular in preschool than those with insecure attachments (LaFreniere & Sroufe, 1985). In contrast, anxious-insecure children are more likely to experience peer problems and be less socially competent than children with secure attachments (Booth, Rose-Kasnor, & Rubin, 1991). In early and middle childhood, the quality of children's early attachments with others correlates with the quality of their interactions with peers (Hartup, 1992).

Peers. Although many children are rejected by peers because of the previously discussed characteristics, peer rejection is not always solely caused and maintained by the rejected child. Peers are also responsible for peer rejection and the way in which that rejection impacts the rejected children (Bierman, 2004; Campbell, 2002). Bierman (2004) discusses three ways in which peers play a role in peer rejection. First, peers may tease a rejected child and provoke him or her to react in negative ways such as becoming aggressive. This aggressive behavior may then put an end to the teasing; however the child's behavior has been reinforced. Second, peers may not initiate or reciprocate social contact with rejected children and limit the social opportunities available to rejected children (Coie, 1990). Consequently, the rejected children are unable to develop important social skills that evolve with peer interactions. As a result, these rejected children may be forced to interact with peers who are of similar status, but may not be good role models (Bierman, 2004). Third, peers develop reputational biases about

rejected children that influence how others treat and perceive these children's behavior. As a result of negative reputations, rejected children are ignored (Dodge, 1983; Hymel et al., 1990b) or become victims of verbal and physical aggression (Perry et al., 1988). In addition, rejected children's negative behavior is typically attributed to the child's personality, whereas accepted children's negative behavior is considered accidental (Dodge, 1980; Hymel, 1986). Unfortunately, rejected children's reputations are relatively stable and resistant to change no matter how hard these children try to do so (Hartup, 1992).

Impact of peer rejection. Although the directionality of peer rejection and adjustment is difficult to determine, poor peer relations can potentially impact children's and adolescents' lives in a number of ways. First, prolonged peer difficulties can contribute to internalizing and externalizing problems. In response to peer rejection, children and adolescents may engage in maladaptive social behavior which then might affect their current and future relationships with others. Lastly, rejection by peers can influence school attitude, achievement, and attendance. The following sections provide more specific information on these problems.

Psychopathology. Psychopathology can either contribute to or result from peer relationship problems. Peer rejection has been found to predict both internalizing and externalizing problems (DeRosier, Kupersmidt, & Patterson, 1994; Hymel et al., 1990a). Peer rejection may lead to internalizing problems (Rubin et al., 1990) such as loneliness, anxiety, or depression (Boivin et al., 1995; Parker et al., 1995) which tend to be more common among rejected girls (Bell-Dolan et al., 1995) and withdrawn rejected children (Deckard, 2001; Rubin et al., 1990; Rubin et al., 1998). In summary, greater loneliness is

reported by withdrawn rejected children than aggressive rejected children (Boivin et al., 1994; Parkhurst & Asher, 1992).

Rejected children, especially aggressive rejected children, may exhibit externalizing problems such as Conduct Disorder (Parker et al., 1995; Rubin et al., 1990). Aggressive rejected children may also associate with other children of the same peer status, which may result in substance abuse, delinquency, and school dropout (Parker et al., 1995). For example, Kupersmidt, Burchinal, and Patterson (1995) found that rejected children had a higher risk for delinquency four years later. Ollendick et al. (1992) also found that rejected children had higher levels of conduct disturbance and substance abuse.

Social behavior. When children experience prolonged peer rejection, their social behavior may change and increase their risk of future negative peer experiences (Parker & Asher, 1987). For example, Dodge (1983) examined the development of sociometric status of boys in peer groups over time. The boys, who did not know each other, participated in play groups. The boys who became unpopular, engaged in inappropriate behaviors and spent a great deal of time alone, but not because they chose to do so. Initially, they approached peers more often than did those boys who became popular. However, when they unsuccessfully attempted to interact with peers, they began to approach peers less often and spent more time playing alone. Some rejected children may feel uncomfortable around peers which diminishes their motivation and confidence to approach and interact with them (Bierman, 2004).

Peer difficulties may impact the other relationships that rejected children have. Some studies suggest that rejected children have lower quality friendships than accepted

children (Parker & Asher, 1993) while others disagree (Patterson et al., 1990). Brendgen, Little, and Krappman (2000) found that friends of rejected children reported their friendships to be less close, less fun, and more quarrelsome than those of accepted children. These results may be due to rejected children's behavioral deficits (Brendgen et al., 2000) or from a negative reputational bias against rejected children (Hymel et al., 1990b). Rejected children's perceptions of their friendships differed considerably from their friends, with rejected children rating their friendships higher in regards to closeness, frequency of play encounters and mutual visits (Brendgen et al., 2000).

Self-concept. In general, children who have peer relationship problems tend to have lower self-confidence (Coie, 1990) and feel less socially competent than more accepted children (Bierman, 2004). Children with negative social reputations, especially those in middle childhood, tend to have poor self regard (Hartup, 1992). As a result of the impact of peer difficulties on children's self-esteem, these children might then suffer from new problems such as depression (Campbell, 2002). However, not all rejected children perceive themselves negatively (Boivin & Begin, 1989; Hymel & Franke, 1985). Withdrawn rejected children appear to have low self-esteem as opposed to aggressive rejected children (Hymel et al., 1990a; Rubin et al., 1990; Verschueren & Marcoen, 2002). As discussed later, this difference in self-esteem may be explained by differences in attributions regarding the rejection (Bierman, 2004). In addition, the fact that aggressive rejected children tend to overestimate their competencies cannot be ignored (Hymel et al., 1993; Patterson et al., 1990).

Fewer resources. As a result of peer rejection, some children are unable to benefit from positive peer interactions that help them develop appropriate social skills

(Coie, 1990). Without these social skills, they have more difficulty coping with social situations, especially during adolescence (Coie, 1990). In addition, these children may not have the social support needed to cope with the stresses associated with the transition to junior and senior high school (Coie, 1990). Consequently, rejected children may bond because of their lack of acceptance from peers from other sociometric groups.

School. Studies have shown that those who have been rejected by peers also are likely to have experienced various school difficulties. Peer acceptance seems to motivate children to engage in class activities; however, peer rejection can do the opposite (Birch & Ladd, 1996). Children who are rejected by peers are less interested in school and more likely to miss school (DeRosier et al., 1994; Ladd, 1990), especially elementary school children (Hymel et al., 1990b). Ladd (1990) found that rejected kindergarten students tended to view school in a negative manner. Unfortunately, rejected children are more likely to have lower grades, fail more grade levels, drop out of school, and become disciplinary problems (Coie, 1990; Ollendick et al., 1992). Aggressive rejected children are most risk for these outcomes.

Factors influencing the effect of peer rejection on later adjustment. Although two children may be rejected by their peers, they may react to the rejection differently. Over the years, various explanations have emerged to understand why some children are distressed about peer difficulties and others are not. One explanation of differences among peer rejected children and adolescents is that they perceive their peer difficulties differently (Cillessen, 1997; Crick & Ladd, 1993; Hymel et al., 1985; Rabiner & Keane, 1993). Research has suggested that one's perception of peer acceptance is more important than one's actual peer status (Kistner, Balthazor, Risi, & Burton, 1999). If

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rejected children perceive they are not accepted by others, internalizing or externalizing problems may result. Cillessen (1997) found that children's peer relations and later adjustment were mediated by their perceptions. Negative social self perceptions mediated the relationship between low peer acceptance and later anxiety, withdrawal, low school competence, and loneliness. In a study conducted by Panak and Garber (1992), children's perceptions of their peer rejection mediated the link between actual rejection and subsequent depression. Differences in perceptions between aggressive rejected and withdrawn rejected children have been evident in various studies. Aggressive rejected children tend to report inflated self-concepts and over-exaggerate their acceptance by peers (Zakriski & Coie, 1996). In contrast, withdrawn rejected children often report lower self-concepts and blame themselves for peer problems (Hymel et al., 1993).

The accuracy of children's perceptions of their peer acceptance is important to consider because it may explain why children are differentially affected by peer rejection. Studies have shown that some children's views of their peer status differ than those of their peers, parents, and teachers (Phillipsen et al., 1999). Inaccurate perceptions may lead them to engage in inappropriate behavior, which may in turn drive peers away (Cillessen & Bellmore, 1999). Withdrawn rejected children tend to have accurate perceptions of their peer rejection (Hymel et al., 1993; Zakriski & Coie, 1996), while aggressive rejected children seldom recognize their poor peer relationships (Patterson et al., 1990) and even overestimate their status among peers (Hymel et al., 1993; Rubin et al., 1998; Zakriski & Coie, 1996). For instance, Rabiner and Keane (1993) found that aggressive children reported that their peers treated them better over time. These inaccurate perceptions may be due to self-protective errors or biases in the manner in

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which peer rejection feedback is processed (Zakriski & Coie, 1996). Another explanation

may be that aggressive rejected children are less willing to acknowledge their peer

difficulties (Boivin & Hymel, 1997). Zakriski and Coie (1996) found that aggressive

rejected boys were more accurate in estimating other's peer acceptance than they were in

judging their own acceptance. Lastly, aggressive unpopular children may not feel that

they have social difficulties because they do have a network of friends (whom may also

be aggressive; Hymel et al., 1993).

The attributions that rejected children make regarding their peer relationship

problems also impact how these children respond to rejection (Bierman, 2004).

Aggressive rejected children often have negative attributional biases and attribute hostile

intentions to others (Dodge, 1980; Dodge & Frame, 1982). Interestingly, Dodge and

Frame (1982) found that these attributional biases only occurred when aggressive boys

interpreted other's behavior towards them and not towards others. Thus, aggressive

rejected children may not realize that it is their own behavior that is inhibiting their peer

relationships, which may explain why they often do not view themselves negatively

(Boivin & Begin, 1989). In contrast, withdrawn rejected children tend to make internal,

global, and stable attributions for their peer difficulties (Rubin et al., 1998). These

children have been found to experience more internalizing problems such as loneliness

and depression (Panak & Garber, 1992; Renshaw & Brown, 1983).

Loneliness

Loneliness is a feeling that can be experienced by all individuals regardless of

age, gender, race, or ethnicity. Several definitions of loneliness have been developed, but

they are all very similar in nature. Most of the definitions describe loneliness as an

unpleasant experience resulting from deficient relationships and unmet needs (Asher & Hopmeyer, 1997). It is critical to realize that loneliness does not merely mean being alone and can occur in individuals who have relationships with others (McWhirter, 1990). At one point in our lives, we are all likely to experience loneliness. The loneliness may be temporary and subside when we develop new relationships or mend old relationships. In contrast, loneliness may become chronic or persistent and threaten one's future adjustment (McWhirter, 1990). For instance, a lonely individual might engage in self-defeating thoughts and behavior that hamper his or her motivation to pursue relationships with others (Dill & Anderson, 1999).

Research on loneliness emerged in the 1970's with a focus on adult loneliness. At that time, loneliness was thought to be only experienced by adolescents and adults. Researchers such as Harry Stack Sullivan (1953) insisted that children could not experience loneliness until early adolescence when they developed the need for intimacy in the context of a close friendship (Asher & Hopmeyer, 1997). Weiss (1973) also believed that loneliness could not be experienced until adolescence when a desire emerges to form relationships with others besides one's parents (Asher & Hopmeyer, 1997). Over the years, researchers have disconfirmed this notion with findings that children do experience loneliness (Asher et al., 1990). For instance, Asher et al. (1984) found that at least 10% of elementary school aged children reported feeling lonely either always or most of the time. In Berguno et al. (2004)'s study, 80% of the eight to ten year old children studied reported experiencing loneliness. These alarming findings have led to a major focus on examining loneliness in children and adolescents.

Research has also shown that children, even kindergartners, appear to possess an understanding of loneliness (Asher et al., 1990). Cassidy and Asher (1992) found that these children possessed an understanding of what loneliness is, how to identify loneliness in others, types of situations that may lead to loneliness, and ways to overcome loneliness. The children defined loneliness as "being sad and lonely," expressed that it is a result of "having nobody to play with," and suggested that one can get rid of their loneliness by "finding a friend" (Cassidy & Asher, 1992). Thus, these children appear to understand that loneliness consists of "a combination of solitude and depressed affect" which is similar to adults' meaning of loneliness (Asher & Paquette, 2003). Berguno et al. (2004) also found that children (ranging from age 8 to 10 years old) consider loneliness to be "a lack of interpersonal connectedness."

Contributions to loneliness. Most definitions of loneliness describe an unpleasant experience resulting from deficient relationships and unmet needs. Therefore, loneliness is believed to be rooted in one's current and past relationships. Loneliness in children and adolescents can take different forms and can be associated with one's family or one's peers (Asher & Paquette, 2003). Being rejected by peers, having few or no friends, experiencing parental divorce, or suffering the loss of a significant person or pet can all contribute to the development of depression (Bullock, 1998).

Researchers such as Sullivan and Bowlby have stressed the importance of the early parent-child relationship and how it impacts future adjustment (Asher & Hopmeyer, 1997). Despite the fact that deficits in the parent-child relationship may be a source of loneliness, past research has primarily investigated the connection between loneliness and peer relationships. Peer loneliness continues to be a major focus because peer rejection,

low social acceptance, and difficulty making friends have been repeatedly found to predict loneliness (Asher et al., 1990; Fontaine et al., 2009; Parker & Asher, 1993). These findings have been consistent across various age groups (Asher et al., 1990).

Children and adolescents' experience of loneliness. Connections between rejected children and loneliness have been found in numerous studies. Rejected children express significantly more loneliness than children belonging to other peer status groups (Asher et al., 1984; Asher & Wheeler, 1985; Cassidy & Asher, 1992; Cillessen, 1997; Crick & Ladd, 1993; Parkhurst & Asher, 1992). These findings are consistent over studies involving children of various ages (i.e., kindergarten to middle school; Asher et al., 1990). Average, controversial, and neglected children tend to report less loneliness than other groups (Crick & Ladd, 1993). Although neglected children may not interact with peers often, they have not been found to be significantly lonelier than average status children (Asher & Wheeler, 1985; Asher et al., 1990; Crick & Ladd, 1993; Sanderson & Siegal, 1995). In regards to grade level, middle school students have been found to experience greater loneliness than elementary students (Parkhurst & Asher, 1992).

Although rejected children tend to experience more loneliness than children belonging to other sociometric groups, not all rejected children report feelings of loneliness (Asher & Wheeler, 1985; Asher et al., 1990). For instance, research has shown that withdrawn rejected children report greater loneliness than aggressive rejected children (Boivin & Hymel, 1997; Parkhurst & Asher, 1987). Parkhurst and Asher (1992) and Boivin et al. (1994) also found that submissive rejected children had a higher likelihood of feeling lonely than aggressive rejected children and average status children. In a 1997 study conducted by Cillissen, rejected children who perceived themselves as

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being disliked by peers reported greater loneliness. Asher et al. (1990) discussed five factors that might explain differences in loneliness among rejected children.

First, the degree and chronicity of rejection may play a role. Children who are rejected by almost all of their peers and those who experience chronic rejection are likely to report greater loneliness. It also could be that withdrawn rejected children interpret their peer status more negatively (Boivin & Hymel, 1997). Another factor may be the presence of a friend or friends because children without any friends experience greater loneliness than children with friends (Parker & Asher, 1993; Renshaw & Brown, 1993). In Sanderson and Siegal's study (1995), rejected preschoolers who had a stable mutual friendship expressed lower levels of loneliness than rejected preschoolers who did not possess a stable friendship. Therefore, aggressive rejected children may not report social problems because they have some friends (Hymel et al., 1993). Rejected children's attributions regarding their rejection may also be a factor. Children with an internal locus of control may be likely to believe that their behavior has contributed to their rejection by peers. Research has shown that children who blame themselves for their rejection tend to be lonelier than children who place blame on others (Renshaw & Brown, 1993). In contrast, aggressive rejected children tend to have negative attributional biases and negatively interpret other's behavior towards them (Dodge, 1980; Dodge & Frame, 1982). Consequently, they may blame their low peer acceptance on their peers instead of themselves (Verschueren & Marcoen, 2002). Differences among rejected children's behavior may explain their variance in feelings of loneliness. Lastly, children's willingness to admit that they are lonely may be another factor.

The stability of loneliness has not received considerable attention in the extant literature. Hymel and colleagues (1985) found that loneliness tends to be stable at least a year. In middle childhood, loneliness tends to be more stable. In a study conducted by Renshaw and Brown (1993), the correlations of initial loneliness with loneliness ten weeks later and one year later was .66 and .56, respectively. Qualter, Brown, Munn, and Rotenberg (2010) recently completed the first longitudinal study on loneliness. They followed children over an eight year period and determined that enduring loneliness in childhood is predictive of depression in adolescence. Interestingly, the stability of loneliness may influence a child's attributions for their peer problems. During the first year of a two year study of elementary school children's attributions for social situations, lonely children tended to believe that social success was externally caused and unstable (Hymel et al., 1985). A year later, these same children attributed social failure to internal factors and believed that it was stable.

Consequences of loneliness. Children may be impacted by loneliness in a number of ways. First, lonely children may also experience feelings of "sadness, malaise, boredom, and alienation" (Bullock, 1998). Lonely children tend to view their peer difficulties as internally caused and stable (Hymel & Franke, 1985; Renshaw & Brown, 1993) so their self-esteem may suffer (Bullock, 1998). In addition, they may give up on changing their peer difficulties (Hymel & Franke, 1985), which may deprive them of the benefits of peer interactions and relationships (Bullock, 1998). These children may also be rejected by peers even more (Boivin et al., 1995) and bullied (Berguno et al., 2004). Renshaw and Brown (1993) discussed a self-perpetuating cycle of loneliness in which children "downplay" their peer problems and neglect improving these problems, which

lead to increased peer rejection and increased loneliness. Loneliness in childhood may persist into adulthood (Hymel & Franke, 1985).

Children, who are lonely, may also begin to experience depressive symptoms. In Boivin et al.'s study (1995), increases in reported loneliness over the year predicted depressed mood. A longitudinal study conducted by Fontaine et al. (2009) followed children from kindergarten through ninth grade and found that children with peer difficulties who were also lonely, began to experience anxious/depressed symptoms. When Rubin and Mills (1988) followed children from second grade to fifth grade, children who were considered passively withdrawn were more likely to report depression and loneliness in fifth grade.

Measuring loneliness in children and adolescents. The task of assessing loneliness in children is not an easy one and may require employing a variety of methods. As discussed earlier in regards to the assessment of children's peer acceptance, the choice of methods should take into consideration the age and developmental level of the children. The following methods are ways in which loneliness can be measured in children.

Observations. Observations of children's interactions may provide insight into loneliness. First, one should take notice of children who are rejected or victimized by peers, or who appear to avoid peer interactions intentionally (Bullock, 1998). These children may be at risk for or may currently be experiencing feelings of loneliness. Additional signs of loneliness in children may include anxiety, sadness, timidness, and lack of interest in surroundings (Bullock, 1998). Again, one must keep in mind children's developmental levels when conducting observations. For instance, although a sign of

loneliness might be playing alone, preschoolers typically engage in solitary play (Bullock, 1998).

   Informal discussions with children. Observations may overlook loneliness in children so informal discussions with children may be needed. Bullock (1998) suggests one should try to individually talk to children about their feelings to probe for feelings of loneliness. These discussions should involve questions such as "What does sad and lonely mean?", "Are you sad and lonely?", and "What would make you happier?" (Cassidy & Asher, 1992). Teachers can also use formal means to talk to children about loneliness. They can design class lessons that discuss the feelings associated with loneliness as well as what one can do to overcome feelings of loneliness.

   Self-report measures. Due to concern that direct observations and reports from teachers, peers, and parents are not sufficient in assessing children's loneliness (Asher & Hopmeyer, 1997), a variety of self-report measures have been developed to assess different types of loneliness (i.e. peer, family) as well as assess loneliness in children of different ages (e.g. UCLA Loneliness Scale for Adolescents) (Asher et al., 1990). Some measures assess loneliness in the peer and/or family context. Research has shown that children can reliably respond appropriately to self-report measures of loneliness (e.g. Asher et al., 1984). The Loneliness and Social Dissatisfaction Scale is a common self-report measure that assesses children's feelings of loneliness, provides appraisals of their current peer relationships, measures their perceptions of the degree to which important relationship provisions are being met, and assesses perceptions of their social competence (Asher et al., 1984). The measure has been found to possess strong internal consistency and stability among grade school children over a year time period (Asher et al., 1984).

Over the years, this self-report measure has been modified to use with younger and older children (Cassidy & Asher, 1992). In addition, it has been slightly revised to focus more on peer relationships in the school setting (Asher & Wheeler, 1985). These variations have been studied and found to have good internal reliability (alpha coefficients of .90 and above for older children and .79 for kindergarten and first grade children; Asher et al., 1990).

Depression

Depression can be thought of as a symptom, syndrome, or disorder. Depressed mood is a symptom that can be experienced by any age group and can be exhibited briefly or chronically (Stark et al., 1997). Various self-report measures have been designed to identify this particular symptom (Cicchetti & Toth, 1998). A depressive syndrome is considered a set of symptoms (behaviors and emotions) that co-occur not by chance (Stark et al., 1997). Depression can also be a disorder characterized by a pervasive feeling of sadness and loss of interest or pleasure in activities. The Diagnostic and Statistical Manual of Mental Disorders- Fourth Edition Text Revision (American Psychiatric Association, 2000) defines two primary unipolar depressive conditions: Dysthmic Disorder and Major Depressive Disorder. Dysthmic disorder is considered a chronic condition that is less severe than Major Depressive Disorder because the symptoms may not always result in clinically significant distress or impairment in social, occupational, academic, or other major areas of functioning (APA, 2000). For Dysthmic Disorder to be diagnosed, at least two of the following depressive symptoms must occur for most of the day, more days than not, for at least 2 years:

1. Appetite decreased or increased

2. Sleep decreased or increased

3. Fatigue or low energy

4. Poor self image

5. Decreased concentration and decisiveness

6. Feels hopeless or pessimistic

7. Excessive muscle pain, particularly upper back, and feet

During this two year period, symptoms should never absent longer than two consecutive months. The symptoms must not be caused by a medical condition, substance abuse, medication, bereavement, or psychotic disorder. In addition, no Major Depressive Episode, or Manic, Hypomaniac, or Mixed Episodes should have occurred.

The criteria for a Major Depressive Episode is five or more of the following symptoms have been present for at least two weeks period and represent a change from previous functioning:

1. Depressed mood most of the day, nearly every day, as indicated by either subjective report (e.g., feels sad or empty) or observation made by others (e.g., appears tearful). **Note:** In children and adolescents, can be irritable mood.

2. Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated by either subjective account or observation made by others)

3. Significant weight loss when not dieting or weight gain (e.g., a change of more than 5% of body weight in a month), or decrease or increase

in appetite nearly every day. **Note:** In children, consider failure to make expected weight gains.

4. Insomnia or Hypersomnia nearly every day

5. Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down)

6. Fatigue or loss of energy nearly every day

7. Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick)

8. Diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or as observed by others)

9. Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide

At least one of the symptoms must be depressed mood or loss of interest or pleasure. The symptoms must be causing significant distress or impairment in functioning and may not be due to the direct physiological effects of a substance, general medical condition or bereavement. This diagnosis criterion is used for children, adolescents, and adults.

Depression in childhood and adolescence. Until the 1980's, little research examined depression in childhood and adolescence. Since then, studies have shown that depression is on the rise among young people (Birmaher et al., 1996a; Garber, 2000) and is increasing with every successive generation (Birmaher et al., 1998). In their study of a

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clinic sample of eight to thirteen year olds with first episode major depressive or dysthmic disorder, Kovacs et al. (1997) found that the age of onset ranged from 7.75 to 14.01 years with a mean of 10.98. Depression tends to occur less often in young children, but does occur. For instance, a recent study of three hundred preschoolers found that depression was a chronic and reoccurring problem for several preschoolers (Luby, Si, Belden, Tandon, & Spitznagel, 2009). The increase in depression rates as children enter adolescence is understandable considering the pubertal changes associated with adolescence as well as the increased focus on self (Fleming & Offord, 1990). Although depression in children occurs at approximately the same rate across genders (Stark et al., 1997), in adolescence females experience depression more than males at a 2:1 ratio (Fleming & Offord, 1990; Lewinsohn et al., 1994). Explanations for these differences include biological changes during puberty, changes in frequency of environmental stressors, genetic regulatory processes, developmental changes in availability of vulnerability or protective factors (i.e. social support), etc. (Rutter, 1986).

Despite the prevalence of depression in children and adolescents, the symptoms often go undetected because they mirror behaviors typical of normal development. The expression of depressive symptoms in children and adolescence can also vary depending on the youth's developmental stage, especially depending on if the individual is in the initial presentation or the worse point (Kovacs, 1996). For instance, some children may be quiet and reserved and internalize their troubles (Stark et al., 1997). Other depressed children may display anxiety symptoms, somatic complaints, auditory hallucinations, temper tantrums, and behavioral problems (Birmaher et al., 1998). They may also have difficulty concentrating, lose motivation, and decrease their school performance

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(Reynolds & Johnston, 1994; Stark et al., 1997). As they enter adolescence, they experience more sleep and appetite disturbances, delusions, suicidal ideation and attempts, and report low self-esteem, guild, and hopelessness (Birmaher et al., 1998). Antisocial behavior has been observed in both children and adolescents who are depressed, particularly boys (McGee & Williams, 1988).

Research shows that children and adolescents tend to recover from their first episode of depression, but it may take a while. In young patients, median episode length is 8 to 9 months; 30% to 40% can be expected to recover by 6 months from onset, 70% to 80% by 12 months from onset, and 80% to 95% by 18 months from onset of the episode (Kovacs et al., 1997; McCauley et al., 1993; Sanford et al., 1995). Unfortunately, studies have consistently found that depression reoccurs with a cumulative probability of 40% by two years and 70% by five years (reviewed by Birmaher et al., 1996a; Kovacs, 1996; Lewinsohn et al., 1994; McGee & Williams, 1988; Sanford et al., 1995).

In a recent study of the stability of depression among preschoolers, preschoolers with depression were four times more likely to experience depression a year and two years later than preschoolers without depression (Luby et al., 2009). Thus, depression even among young children is not transient. Factors that may increase the likelihood of reoccurrence include age of onset, increased number of episodes, presence of comorbid psychiatric disorders, exposure to negative life events, and parents with psychopathology (Birmaher et al., 1998). Therefore, the early onset of depression in children and adolescence may lead to a worse outcome due to the likelihood of reoccurrence early in life (Kovacs, 1996). Depressive symptoms may also stunt social and emotional development and negatively impact children and adolescents' relationships with others

(Birmaher et al., 1998). Suicide, substance abuse, pregnancy at an early age, and bipolar

disorder are also potential outcomes (Birmaher et al., 1998).

  Contributions to depression. Various theories exist on the etiology of depression

in children and adolescents. Demographic factors (e.g. age, gender, socioeconomic

status), psychopathology (e.g., preexisting diagnosis, negative cognitive style), familial

factors (e.g., parental psychopathology, early-onset mood disorders), and psychosocial

factors (e.g., poor support, stressful life events) have been linked with depression

(Birmaher et al., 1996a). Stark et al. (1997) nicely organizes the contributors of

depression into cognitive variables, behavioral variables, family variables, and biological

variables.

  Cognitive variables. Cognitive theories of depression suggest that various

cognitive factors interact with stressful life events and lead to depression. Beck's

cognitive model suggests that maladaptive schemata and negative self-schema negatively

distort the processing of information resulting in negative cognitions which ultimately

lead to depression (Stark et al., 1997). According to Abramson's learned

helplessness/hopelessness model, individuals who tend to attribute negative events to

internal, stable, and global factors and attribute positive events to external, unstable, and

specific factors are more likely to develop depression (Stark et al., 1997). In 1992, Panak

and Garber found that elementary students who tended to attribute their peer difficulties

to internal, global, and stable factors were more likely to experience depression a year

later. Thus, the cognitive theories of depression suggest that children with negative

cognitive tendencies interpret stressors more negatively resulting in greater likelihood of

depression. Studies have found much evidence of the relationship between a negative cognitive style and depression in children (Birmaher et al., 1996a; Garber, 2000).

Family variables. Genetics have been found to be a contributor to the development of depression in children. Studies have shown that children of depressed parents are three times more likely to experience depressive episodes (Birmaher et al., 1996a). Although genetics may play a role, it is important to keep in mind that children of depressed parents may experience depression due to factors associated with parental psychopathology such as maladaptive parenting styles and stress (Garber, 2000). In addition, family interactions may involve more conflict, rejection, and communication difficulties as well as less support and affect (Birmaher et al., 1996a). Early negative events such as a parental death or separation may increase risk of depression (Birmaher et al., 1998). However, these events may impact children differently depending on their age and developmental level (Garber, 2000).

Biological variables. Deficits in neurotransmitters such as norepinephrine, serotonin, and dopamine have been linked to depressive symptoms (Stark et al., 1997). Depressed children have been found to hyposecrete growth hormone, but the secretion of growth hormone during sleep has been debated (Garber, 2000). The dysregulation of central serotonergic function in children also has been investigated due to the finding among depressed adults (Garber, 2000). Depressed children have also been found to display nonsuppression of cortisol production in the dexamethasone suppression test (Garber, 2000). Lastly, sleep patterns have been examined in depressed children due to reports of sleep problems, however electroencephalographic (EEG) tests have not demonstrated these problematic sleep patterns (Birmaher et al., 1996a; Garber, 2000).

Behavioral variables. The combination of poor social skills and rejection from others has been associated with depression (Stark et al., 1997). Research has shown that as rejected children become more aware of their lack of peer acceptance, they report more depression (Rabiner & Keane, 1993**).** Shyness and social anxiety have also been factors in the development of depression (Dill & Anderson, 1999). For instance, studies have found that withdrawn rejected children compared to aggressive rejected children tend to report more depressive symptoms (Boivin et al., 1994; Hecht, Inderbitzen, & Bukowski, 1998). The link between loneliness and depression has also been established by researchers (Boivin et al., 1995).

Identifying depression in children and adolescents. When assessing depression in children and adolescence, it is important to gather information from several sources (i.e., child, parent, teacher). Parents and children are likely to differ in their reports of depression in children because parents only observe the overt behaviors whereas children can express internalizing symptoms (Birmaher, Ryan, Williamson, Brent, & Kaufman, 1996b). For example, parents have been found to overlook depression in their adolescents (Fleming & Offord, 1990). In addition, parents may suffer from their own disability, which may skew their ratings (Birmaher et al., 1996b).

Symptom checklists based on DSM-IV depression criteria and rating scales have been found to be useful (Birmaher et al., 1996b). Although these measures do not diagnose depression, higher scores on these measures reflect more depressive symptoms and provide evidence that further evaluation is necessary. Thus, screening measures are quick and useful for screening and monitoring improvement, but do not provide information regarding symptom duration or the degree of impairment (Birmaher et al.,

1998). Over the years, self-report rating scales have been developed and been found to be useful in measuring depression in children and adolescences.

Only two rating scales have been developed for use with children. The Child Depression Inventory, developed by Kovacs, is comprised of twenty-seven items that assess the cognitive, affective, and behavioral signs of depression in school age children and adolescents from seven to seventeen years of age. The measure includes the following subscales: Negative Mood, Interpersonal Problems, Ineffectiveness, Anhedonia, and Negative Self-Esteem. The Reynolds Child Depression Scale, which contains thirty items, can be administered to children ranging from eight to twelve years of age (Reynolds, 1989). For adolescents, common rating scales include The Beck Depression Inventory-Second Edition (Beck et al., 1996) and Reynolds Adolescent Depression Scale (Reynolds, 1986).

Summary

The importance of peer relationships during development has been supported by extensive research. Through peer relationships, children and adolescents gain essential social skills needed for positive future relationships and adjustment. Without these relationships, difficulties may emerge such as internalizing and externalizing behavior problems and academic problems (i.e., negative school attitude, low academic performance, poor attendance). Although research has focused on peer rejection for decades, the impact of peer rejection continues to be a topic of concern.

Numerous studies have provided evidence of the link between peer rejection and adjustment. Unfortunately, the underlying processes of this link are not as well understood. Various explanations have been suggested to better understand the

complexity of this link. Some researchers believe that the presence of loneliness needs to be examined more closely. Studies have found that loneliness appears to be understood and experienced by children as young as five years of age (Asher et al., 1990). At least 10% of elementary school aged children in one study reported feeling lonely either always or most of the time (Asher et al., 1984). Rejected children (regardless of age) have been found to express greater loneliness than children who belong to other peer status groups (Asher et al., 1984; Asher & Wheeler, 1985; Cassidy & Asher, 1992; Crick & Ladd, 1993; Parkhurst & Asher, 1992).

Despite the lack of research on the stability of loneliness, it is understandable that depression may be a potential outcome of a child who experiences loneliness over a long period of time (Boivin et al., 1995; Fontaine et al., 2009). Depression is becoming more prevalent among youth (Birmaher et al., 1996a; Garber, 2000) and impairs their social and emotional development as well as their relationships with others (Birmaher et al., 1998). Sadly, depression has resulted in substance abuse and suicide (Birmaher et al., 1998). Thus, the connection between peer rejection, loneliness, and depression needs to be investigated in an effort to better understand the impact of peer rejection on children and adolescents.

CHAPTER III

Method

The purpose of this study was to better understand how children are impacted by their peer acceptance or rejection. The study investigated children's and adolescents' peer acceptance and feelings of loneliness. In addition, the study explored if children belonging to the rejected group varied in their feelings of loneliness. The stability of children's loneliness was also examined from third grade through adolescence. Lastly, the study sought to determine if children and adolescents who experienced persistent loneliness also endured depressive symptoms. Datasets from the National Institute of Child Health and Human Development (NICHD) Study of Early Child Care (SECC) were selected to assess these research questions.

In 1989, the NICHD began a longitudinal study to explore the relationship between children's child care experiences and their developmental outcomes. To conduct the study, the NICHD composed a research team of NICHD researchers as well as researchers from universities across the United States whose research interests involve early child care. This research team then designed the longitudinal study and chose ten data collection sites across the United States. Those sites are: University of Washington, University of California (Irvine), University of Kansas, University of Wisconsin, University of Arkansas (Little Rock), University of Pittsburgh, Western Carolina Center, University of Virginia, Temple University, and Wellesley College. Each site was given a common protocol that was devised by the Steering Committee (principal investigators from the ten sites, members of the NICHD staff, and an independent chairperson). Researchers then employed various methods (trained observers, interviewers, testing,

questionnaires) to examine children's social, emotional, intellectual, and language development as well as their physical health. Participants were followed from birth to adolescence and their development was measured at various intervals.

Participants

From January 1991 to November 1991, participants were recruited from thirty-one designated hospitals near the ten data collection sites. During selected 24 hour intervals, all women giving birth were screened. A conditionally random sampling plan was designed and utilized to guarantee that participants (a) had mothers who planned to work or attend school full time (60%) or part time (20%) in the child's first year, in addition to mothers who planned to stay at home (20%), and (b) were representative of the demographic diversity (economic, educational, and ethnic) of the sites. All family compositions (two-parent, single-parent) were given the opportunity to participate. Participants were excluded if (a) mothers were younger than 18 years old at the time of the child's birth, (b) families who were not able to commit for at least 3 years, (c) children with obvious disabilities at birth or who remained in the hospital more than 7 days postpartum, and (d) mothers not sufficiently conversant in English. A total of 8,986 women were interviewed, but only 5,416 met the eligibility criteria and expressed interest in being contacted after being discharged from the hospital. After a follow-up phone call and subsequent home visit, a total of 1364 families with full-term healthy newborns were recruited for the study.

The confidentiality of the participants of the NICHD Study of Early Child Care was of utmost importance. At the initial home visit, participating families were given information about the study and asked to complete informed consent forms. The forms

insured that their information would remain confidential and only be accessible to project and national study staff. New informed consent forms were signed during every phase of the study. In addition, adolescents were asked to complete informed consent forms during Phase IV of the study.

During Phase I of the study (1991-1994), data were collected on a diverse sample of 1,364 children and their families at the ten data collection sites. The children were followed from birth to age 3 years. Phase II of the study (1995-2000) followed 1,226 participants from age three through first grade. In Phase III (2000-2005), over 1,000 of the participants were studied from second through sixth grade. Phase IV of the study involved following over 1,000 participants through age 15. At the conclusion of the study, 958 adolescents were still involved in the study which is approximately 70% of the original sample. When the NICHD study was initially designed, the sample size was determined to allow for a significant dropout over the course of the study (originally the first three years of the child's life). The initial sampling plan projected the need for a minimum of 900 participants to allow a power not less than .85 for the major hypotheses of the study. The high retention rate of the study resulted in a sample above 900 even several years after participants were initially recruited.

Measures

Loneliness and Social Dissatisfaction Questionnaire. The Loneliness and Social Dissatisfaction Questionnaire measure was designed to assess "social distress" in elementary students (Asher et al., 1984). The twenty-four items (16 principal, 8 filler) are rated from 1 to 5 (1 = not at all true to 5 = always true). Principal items assess children's feelings of loneliness (e.g., "Are you lonely?"), feelings of social adequacy

versus inadequacy (e.g. "Are you good at working with other kids?"), and subjective estimations of peer status (e.g., "Do you have a lot of friends?"). The fillers pertained to hobbies or preferred activities.

According to Asher et al. (1984), their sample contained 506 children (243 females, 263 males) from third to sixth grade. The children attended one of two schools in a moderate size Midwestern community in the United States. The primary factor score was determined to be internally consistent (Cronbach's alpha = .90) and internally reliable (split-half correlation between forms = .83; Spearman Brown reliability coefficient = .91; Guttman split-half reliability coefficient = .91). All of these reliability coefficients exceed .70, which is considered "acceptable" in most social science research situations. Evidence of validity was also found through a factor analysis (quartimax rotation) in which all of the principal items and none of the filler items loaded on the primary factor. Children, who had the lowest sociometric ratings, were reported as being lonelier than other children.

For the NICHD study, the response order was reversed from the original measure. Loneliness was calculated as the sum of items 1 (reflected), 3, 4 (reflected), 6, 8 (reflected), 9, 10 (reflected), 12, 14, 16 (reflected), 17, 18, 20, 21, 22 (reflected), and 24 with higher scores meaning greater loneliness. The items that comprise this score were found to have high internal reliability (Cronbach's alpha = .87 at 3rd grade and .91 at 5th grade) and a test-retest coefficient of .55 over one year (Asher et al., 1990).

Sociometric Status: Caregiver and Teacher Ratings. The Sociometric Status: Caregiver and Teacher Ratings (Cillessen, Terry, Coie, & Lochman, 1992a) was chosen as a cost and time efficient way to assess participants' sociometric data. Although the

ideal way to determine children's sociometric status is through standard peer nomination procedures, this process was not feasible due to the necessity of obtaining informed consent from all the families of children in the participant's classroom. The Sociometric Status contains four items that focus on the child's social position among peers and aggressive behavior. The teacher/caregiver is asked to indicate the number of votes the child would receive from peers for liked and disliked, and for aggression. The response options range from 1 = almost no votes to 2 = unusually large amount of votes. In addition, the teacher/caregiver is asked to classify children by sociometric group (popular, rejected, neglected, controversial, average). Scores are obtained for well-liked by peers, disliked by peers, and fights with peers. Social classification is scored as 1 = popular, 2 = rejected, 3 = neglected, 4 = controversial, and 5 = average.

Information regarding the measure's sample, reliability, and validity is documented in the NICHD SECC Phase II: Instrument Document. When developing this scale, Cillessen et al., 1992a's sample contained 835 fourth grade children (50% males, 50% females) in 33 different classrooms in eight schools. The children's ethnicity was 60% Caucasian and 40% African-American. The ethnic composition of thirty-three participating teachers was as follows: 25 Caucasian women, 6 African-American women, and 2 Caucasian men. Although most of the teachers had between 22 and 30 students in their class, one teacher only had 11 students. The children were given a list of classmates and had to check whom they liked the most and liked the least, who starts fights, gets into trouble, is a leader, and stays away from others. Teachers were given the Sociometic Status scale to rate each of their students. For reliability purposes, a second teacher rated 20% of the children in the scale development sample. These ratings and original

teachers' ratings correlated .39 for the well-liked scale, and .29 for the disliked scale (p

< .001). Agreement of the main teachers and second teachers was 53% (kappa = .30).

This value improved to 81% (kappa = .48) when the controversial and rejected, and

average and popular, classifications were combined. These coefficients were weakened

since the second ratings for a child came from a teacher who did not see him/her on a

daily basis. In terms of validity, Cillessen et al. (1992a) found that the children rated

high by teachers on the well-liked scale were rated by peers to be high on being a leader

($r = .42, p < .001$), and low on starting fights ($r = -.27, p < .001$) and getting into trouble

($r = -.23, p < .001$). Children rated high by teachers on the disliked scale were chosen by

peers to be low on being a leader ($r = -.32, p < .001$), and high on starting fights ($r = .42,$

$p < .001$) and getting in trouble ($r = .38, p < .001$). Children who were rated as rejected

and controversial by teachers were described by peers as high on starting fights and

getting in trouble. Children who were classified as popular or neglected by teachers were

reported by peers to be low on starting fights and getting in trouble. Average children, as

determined by teacher input, were rated by peers as average on starting fights and getting

in trouble. The children designated as popular by teachers were viewed as leaders by

their peers. The opposite was true of children classified as rejected or neglected.

In the NICHD study, this measure was given to participant's kindergarten, first,

and second grade classroom teachers as well as after-school care providers when child

was in first grade. There were no modifications to the original measure.

Children's Depression Inventory (Short Form). The Children's Depression

Inventory (Short Form-CDI-S; Kovacs, 1992) is based on the 27 item self-report scale

that assesses the cognitive, affective, and behavioral signs of depression in school age

children and adolescents from seven to seventeen years of age. This scale examines Negative Mood, Interpersonal Problems, Ineffectiveness, Anhedonia, and Negative Self-Esteem. The condensed version, which measures dysphoric mood, lack of pleasure, and low self-esteem, is based on the ten best discriminating and most internally consistent items from the longer twenty-seven item form. Requiring only a first grade reading level, the inventory contains ten items that has three options. The child is asked to read each option and select the choice that best describes his or her feelings or behavior over the past two weeks. The Child Depression Score is the sum of items 1 - 10, after recoding responses to a 0 to 2 scale and reflecting items 2, 4, 5, 6, and 10. The possible range of scores is from 0 to 20, with higher scores indicating more child depression. Scores above 8 for girls and above 10 for boys are considered "well above average." The reliability of this measure has been found to be .73 for fifth and sixth graders, which is considered sufficient in social sciences research. The short form has an internal consistency of .80 and correlates .89 with the long form, according to normative data reported in the test manual ($N = 1,266$).

For the NICHD study, the CDI-S was named the "How I Sometimes Feel" questionnaire and given to study participants in fifth and sixth grade as well as when they were 15 years old. No revisions were made to the inventory and all items were read to the child by the research assistant.

Teacher Report Form. The Teacher Report Form (TRF; Achenbach & Rescorla, 2001) is a common measure used to gather teachers' input on a child or adolescent's social and emotional functioning. The scale, comprised of 113 items, can be used for children aged six to eighteen. Teachers are asked to rate each behavior on a scale from 0

(not true of child) to 2 (very true of the child) based on the child's behavior over the past two months. T-scores are calculated for eight Syndrome scales (Withdrawal, Somatic Complaints, Anxious/Depressed, Social Problems, Thought Problems, Attention Problems, Delinquent Behavior, and Aggressive Behavior). The Syndrome scale scores range from 50 to 100 with 100 being more problematic. The scale scores truncate at 50 so no scores are below 50. Based on these scores, three Total scale scores (Internalizing, Externalizing, Total Problem) are computed. The composition of these scale scores are as follows: Internalizing (based on Withdrawal, Somatic Complaints, and Anxious/Depressed Syndromes), Externalizing (based on Delinquent and Aggressive behaviors), and the Total Problem scale (based on all eight Syndromes). All scores are calculated using the software provided by ASEBA. For the Syndrome scales, cutoff points are as follows: Borderline Clinical (T = 65-69), Clinical (T > 69).

The Teacher Report Form has been found to be highly reliable, internally consistent, and valid (Achenbach & Rescorla, 2001). Due to the Teacher Report Form's popularity, strong validity, and good standardization, it is utilized throughout the NICHD SECC Study from the time that participants are in kindergarten through sixth grade. The Anxious/Depressed, Withdrawal and Aggressive Behavior scales were utilized in this study. Table 1 documents the behaviors associated with these scales.

Table 1

Teacher Report Form Syndrome Scales and Associated Behaviors

Scale	Behaviors
Withdrawal	Would rather be alone, won't talk, secretive, shy, underactive, and withdrawn
Aggressive Behavior	Argumentative, mean to others, demands attention, destroys things, defiant, gets into fights, attacks people, screams, stubborn, mood changes, temper, explosive, easily frustrated, threatens others
Anxious/Depressed	Enjoys little, cries, harms self, feels worthless, tired, apathetic, sad, underactive

Research Design

The current study aimed to better understand the impact of peer rejection on children and adolescents by examining peer acceptance, loneliness, and depressive symptoms. Datasets from Phase II, III, and IV of the NICHD SECC were utilized to explore these variables. Peer acceptance information was obtained from results of the Sociometric Status rating scale given to participants' teachers in second grade. Each participant's loneliness was measured by the Loneliness and Social Dissatisfaction Questionnaire administered in grades three and five as well as at age fifteen. The presence of depressive symptoms was assessed from information gathered from the Children's Depression Inventory- Short Form (administered in fifth grade and at age fifteen). Table 2 provides a visual representation of the study's variables as well as how they were measured.

Table 2

Measures for Study Variables

Variable	SECC Instrument	Age
Sociometric Status	Sociometric Status: Teacher Ratings Form	Second Grade
Loneliness	Loneliness & Social Dissatisfaction Questionnaire	Third Grade, Fifth Grade, Age 15
Depressive Symptoms	Children's Depression Inventory- Short Form	Fifth Grade, Age 15
Depressive Symptoms	Teacher Report Form	Kindergarten
Withdrawn Behavior Aggressive Behavior	Teacher Report Form	Second Grade

Procedures

In 1991, data collection for the study began when participating children were one month old. Phase I of the study followed these children through three years of age. During this time period, research assistants visited each child at home, in child care (if applicable), and in a laboratory playroom. In addition, extensive data was collected from each child's family. Phase II and Phase III of the study collected data on participants from 54 months of age through first grade (Phase II) and second through sixth grade (Phase III). In Phase IV, participants were followed from age thirteen to fifteen. Research assistants from the ten data collection sites studied participants at home, in child care, in elementary school, and in a laboratory playroom. The participant's parents, social and physical characteristics of the home, the child-care and after-school care environments, and the elementary school were further examined. In addition, telephone calls were completed every three months in Phase I, every four months in Phase II, a six

month follow-up phone call when the participant turned five years old, and annual phone calls throughout Phase III and IV. School visits were conducted when participants were in first, third, and fifth grades. Teacher questionnaires were utilized to gather information about participants' school achievement and behavior at these points in time. Participants were observed in a laboratory playroom with a same-age peer when they were 36 and 54 months of ages, and then in fourth and sixth grades. When participants turned 9 ½ years old, annual health and physical development visits were initiated. During third, fifth, and sixth grade, each participant's physical activity was monitored for a week and information about his or her family and school encouragement of activity was collected. Phase IV of the study continued to follow participants from age thirteen to fifteen to determine how their early experiences as well as contextual and maturational factors in adolescence have impacted their functioning during middle adolescence. Information was gathered from health records, middle and high school transcripts, and surveys of middle and high school personnel. One home visit and one laboratory visit were conducted.

The Loneliness and Social Dissatisfaction Questionnaire for Children was administered during a home visit while the child was in third grade and fifth grade. The questionnaire was recorded on an audiotape made by researchers at Temple University. Each question was read on the audiotape, followed by a four second time interval in which the child was able to point to his/her answer on a response card. The research assistant sat next to the child and both wore headphones to hear the recording. The child was told to feel free to ask questions during the administration if necessary. The child was told that he/she would be asked some questions about what he or she like to do and

how he or she feels about things. The children participating in the study were reassured that they did not have to answer questions if they did not want to and that their answers would be private. A response card was placed in front of the child with the following options: 1) Not at all true, 2) Hardly ever true, 3) Sometimes true, 4) Most of the time true, and 5) Always true. The child was instructed to point to one of the response options after each item was read on the audiotape. A practice question ("I don't like rollerskating.") was read by the research assistant. Additional practice items were given if the child did not appear to understand the task. Next, the child and research assistant put on their headphones and the recording was played. After each item, the research assistant circled the child's answer on the questionnaire data form. At the end of the administration, the child was thanked and praised for doing well.

When study participants were administered the Loneliness and Social Dissatisfaction Questionnaire for Children in a fifth grade home visit, they were also given the Children's Depression Inventory-Short Form. The research assistant introduced the activity to the child and then read the directions and practice item as the child followed along on the form. Once it was apparent that the child understood the directions, each item was read by the research assistant and then the child was directed to pick the sentence that best described how he or she felt in the past two weeks. At the end of the administration, the child was thanked for his or her participation.

During Phase IV, participants were asked to complete various questionnaires at age 15 during a laboratory visit. Two of these questionnaires were the Loneliness and Social Dissatisfaction Questionnaire and Children's Depression Inventory- Short Form. The questionnaires were self-administered via a touch screen laptop computer. An

Audio- and Computer- Assisted Self-Administered Interview (ACASI) program was utilized to read the questions to the adolescent as well as each of the response choices the first time they appeared. Each adolescent was given a tutorial on how to answer questions by touching his or her answers on the laptop screen with a stylus. A research assistant was present to provide additional instructions and monitor the participant's progress. At the end of the visit, each participant was paid $40 for his or her participation.

The Sociometric Status: Teacher Ratings Form and Teacher Report Form were two of the ten questionnaires mailed to teachers of study children for whom parent permission was secured to contact the teacher. Each winter, the teacher received a packet containing a cover letter that explained the study, invited their participation, explained the general content of the enclosed forms as well as how to complete and return the forms. The name and phone number of a person from the data collection site was also provided in the event of any questions regarding the measures or procedures for returning the forms. A more in-depth description of the study and a signed copy of the parental consent for teacher contact were also included in the packet. Two copies of the informed consent form from the teacher were included with instructions to sign and return one copy with the completed packet. Lastly, each packet contained a sharpened #2 pencil for teachers to use when completing the forms so that answers were legible. Teachers received $50 for completing the questionnaires and mailing them in the enclosed postage paid envelope.

Research Questions and Hypotheses

Connections between children's peer acceptance/rejection, loneliness, and depressive symptoms were explored in the study. The study first assessed the stability of loneliness across developmental periods. Gender differences and rejection group differences in loneliness at time 1 (grade 3), time 2 (grade 5), time 3 (age 15) were examined. In addition, the analyses were conducted to determine whether these groups experience different patterns of loneliness across developmental periods. It was expected that loneliness would persist and increase over time. Significant differences were expected among rejection groups. For instance, it was hypothesized that withdrawn rejected children would experience greater loneliness than aggressive rejected children.

A second intent of the study was to explore if there was a relationship between loneliness and depressive symptoms. The second research question examined if a history of loneliness predicts later depression. First, participants' loneliness scores from the third grade and fifth grade were used to predict depression at fifth grade. Next, loneliness scores from fifth grade and age 15 were used to predict depression at age 15. It was predicted that participants who experienced loneliness would also report depressive symptoms.

Data Analysis

Data from all phases of the study were analyzed by the SECC researchers as well as the Inter-University Consortium for Political and Social Research. In January 2000, qualified researchers could obtain and utilize data from Phase I of the study. Phase II and Phase III data became available to qualified researchers in October 2002 and January 2006, respectively. Phase IV data is also now currently available. The NICHD SECC

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provides researchers with an SPSS database that does not contain any identifying subject information. Datasets from Phase III and IV of the NICHD SECC study were utilized for this study.

Various statistical analyses were conducted using SPSS 19.0 for Windows. Descriptive statistics were computed to describe the sample's demographic information. Means and standard deviations were also calculated for each dependent variable measure. In order to investigate the research questions, repeated measures analysis of variance (ANOVA), an analysis of covariance (ANCOVA), and regression analyses were conducted. Prior to running these statistical analyses, their assumptions were evaluated with preliminary analyses. An alpha level of .05 was selected as the criteria for level of significance for analyses.

Research Question 1. The first research question investigated the relationship between loneliness and developmental period. Repeated measures ANOVA was chosen to assess potential differences between males and females as well as aggressive rejected and withdrawn rejected participants in loneliness at time 1 (grade 3), time 2 (grade 5), time 3 (age 15). In addition, the analyses were conducted to determine whether these groups experience different patterns of loneliness across developmental periods. The between-subjects factors were gender (male, female) and rejection group (aggressive rejected, withdrawn rejected). A one standard deviation cutoff score was selected to indicate problematic levels and characterize participants aggressive rejected and withdrawn rejected. Time was the within subjects factor. Loneliness was the dependent variable.

Repeated measures ANOVA is based on the following assumptions: independence of observations, normality, homogeneity of variance, and sphericity (Stevens, 2002). Independence of observations is defined as participants' responses being independent of one another. If responses are dependent, then level of significance and power are substantially impacted (Stevens, 2002). Normality requires that each of the variables as well as any linear combination of the variables are normally distributed (Stevens, 2002). An examination of histograms for variables can confirm normality. Skewness (symmetry of the distribution) and kurtosis (peakedness of the distribution) tests can also provide evidence of normality. When the skewness and kurtosis values are equal to zero, a normal distribution is evident. If these values are greater than 1.5 or less than -1.5, then the normality assumption is violated (Huck, 2000). Homogeneity of variance assumes equal variances across groups and is assessed by Levene's Test. Sphericity refers to the necessity that the variances of the differences for all pairs of repeated measures are equal (Stevens, 2002). If this assumption is violated, then loss of power is a concern. The Mauchley's Test of Sphericity is commonly used to screen for this assumption. If the sphericity assumption has been violated, corrections such as the Greenhouse Geisser or Huyhn Feldt are utilized by adjusting the degrees of freedom associated with the F-value.

Research Question 2. In order to evaluate the second research question if loneliness predicts later depression, ANCOVA was first conducted to adjust for initial depression at Time 1 of the study. An ANCOVA is useful in determining whether outcomes scores differ across participants when initial characteristics are controlled. By adjusting the means in a linear fashion, an ANCOVA reduces the likelihood of a Type II

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error and increases statistical power (Stevens, 2002). An ANCOVA relies on the same assumptions as an ANOVA as well as three additional assumptions. First, the independent variable must not affect the covariate. Linearity must also be met in which there is a linear relationship between the covariate and dependent variable. The last assumption is homogeneity of regression (correlation between the covariate and dependent variable is the same for each level of the independent variable). For each level of the independent variable, the slope of the prediction of the dependent variable from the covariate must be equal. In the current study, the covariate was initial depression measured by the Anxious/Depressed scale on Teacher Report Form completed when the participant was in kindergarten.

Next, multiple regression was utilized to determine how well loneliness (predictor variables) explains the variation in depressive symptoms (dependent variable). Regression analyses were first conducted using participants' loneliness scores from third grade and fifth grade to predict depression at fifth grade. Loneliness scores from fifth grade and age 15 were used to predict depression at age 15.

Multiple regression is based on several assumptions including normality, linearity, multicollinearity, and homoscedasticity. Normality assumes normally distributed variables and is tested by visual inspection of histograms, normal probability plots, or residual scatterplots. Skewness and kurtosis tests can also be utilized. Linearity assumes a linear relationship between variables. If the relationship between the independent and dependent variable is nonlinear, the true relationship between the variables will be underestimated. Examination of bivariate scatterplots and residual plots are useful in checking for linearity. A linear relationship between variables is detected by

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an oval shaped scatterplot or when standardized residual values accumulate along a horizontal line. Residuals are the difference between obtained and predicted dependent variable scores. Another assumption of multiple regression is the non-existence of multicollinearity or in other words, the independent variables are unrelated to one another. Homoscedasticity means that the dependent variable exhibits similar amounts of variance across the range of values for an independent variable. This assumption can be checked by various ways (i.e., examining residual scatterplots, Levene's test of homogeneity of variance).

Summary

In summary, the current study examined the interrelationship between peer rejection, loneliness, and depressive symptoms. Datasets from the NICHD SECC were utilized to assess the research questions. Participants were selected from ten data collection sites across the United States and followed from birth to adolescence. The study's variables included rejection group (aggressive rejected, withdrawn rejected), loneliness (grade 3, grade 5, age 15) and depressive symptoms (grade 5, age 15).

CHAPTER IV

Results

The results section is organized in the following manner. Descriptive statistics are presented first and include the demographic information of the sample in regards to the gender and ethnicity of the participants in the study. Means and standard deviations are also reported for each dependent variable measure. Next, results of the preliminary analyses for the statistical assumptions are discussed. Lastly, each research question is presented along with the corresponding results of data analyses.

Descriptive Statistics

During Phase I of the NCIHD SECC study (1991-1994), data were collected on a diverse sample of 1,364 children and their families. At the conclusion, 958 adolescents were still involved in the study, which is approximately 70% of the original sample. Only 720 of these participants had complete data regarding the current study's variables. For the purposes of this study, only participants who were considered to be "rejected" on the Sociometric Status: Teacher Rating Scale were included in this analysis. Thus, the final sample was comprised of 21 participants in which 67% are males ($n = 14$) and 34% are females ($n = 7$). The ethnicity breakdown of the selected participants was as follows: African American (19%), Caucasian (76%), and Other (4.8%).

Participants were identified as aggressive or withdrawn based on the second grade teacher reports on the Aggressive Behavior scale and the Withdrawal scale on the Teacher Report Form. This rating scale utilizes T-scores with a mean of 50 and standard deviation of 10. A one standard deviation above the mean ($T >= 60$) cutoff score was selected to indicate problematic levels and characterized participants as withdrawn

rejected and aggressive rejected. The aggressive rejected group consisted of 54% males (*n* = 7) and 46% females (*n* = 6). The withdrawn rejected group contained 87% males (*n* = 7) and 12% females (*n* = 1). Table 3 contains the overall means and standard deviations of the groups for the study's variables. Gender differences in the means and standard deviations are illustrated in Table 4.

Table 3

Means and Standard Deviations for Dependent Variables

Variable	Total (n = 21)		Aggressive (n = 13)		Withdrawn (n = 8)	
	Mean	SD	Mean	SD	Mean	SD
Loneliness Grade 3	32.86	9.65	30.23	7.28	37.13	11.89
Loneliness Grade 5	33.52	9.42	31.00	7.46	37.63	11.26
Loneliness Age 15	33.00	10.89	28.38	10.20	40.50	7.54
Depression Grade 5	1.76	1.30	1.23	1.01	2.63	1.30
Depression Age 15	3.05	2.18	2.00	1.47	4.75	2.12

Table 4

Means and Standard Deviations for Dependent Variables by Rejection Group and Gender

Variable	Aggressive				Withdrawn			
	Male (n = 7)		Female (n = 6)		Male (n = 7)		Female (n = 1)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Loneliness Grade 3	30.29	8.36	30.17	6.59	34.29	9.46	57.00	--
Loneliness Grade 5	31.14	7.82	30.83	7.76	38.57	11.82	31.00	--
Loneliness Age 15	30.14	12.27	26.33	7.74	39.86	7.90	45.00	--
Depression Grade 5	1.14	.69	1.33	1.37	2.86	1.21	1.00	--
Depression Age 15	1.86	1.07	2.17	1.94	4.43	2.07	7.00	--

Preliminary Statistical Analyses

Pearson bivariate correlations were conducted to examine the relationship between the study's variables and are presented in Table 5. Significant correlations were found between loneliness and depression at age 15, ($p < .01$). There was also a strong correlation between loneliness at grade 5 and age 15, ($p < .01$). Further examination of the correlation matrix reveals another significant correlation between loneliness and depression at grade 5.

Table 5

Correlation Matrix for Loneliness and Depression Variables

Measure	1	2	3	4	5
1. Loneliness Grade 3	--				
2. Loneliness Grade 5	.379	--			
3. Loneliness Age 15	.252	.568**	--		
4. Depression Grade 5	.352	.538*	.342	--	
5. Depression Age 15	.398	.313	.689**	.251	--

*p < .05, **p < .01

The normality assumption was tested by skewness and kurtosis tests. As shown in Table 6, all variables appear to be normally distributed. After examination of plots, it was concluded that the linearity assumption was satisfied for all analyses. The Mauchley's Test of Sphericity was utilized to evaluate the sphericity assumption. Results were not significant ($p = .173$, which is greater than .05), so the assumption was satisfied. Thus, it can be concluded that the variances of differences are not significantly different. Homogeneity of variance was assessed using Levene's Test. The test for equality of variances was not significant for loneliness grade 3 and loneliness grade 5, indicating that the variances were homogenous, thus meeting the assumption. For loneliness age 15, the

variances were heterogeneous, $F(3, 17) = 3.914, p = .027$. As displayed in Figure 1, examination of residual plots also confirmed that the assumptions of linearity, normality, and homoscedasticity were met.

Table 6

Range, Skewness, Kurtosis Values for Loneliness and Depression Variables

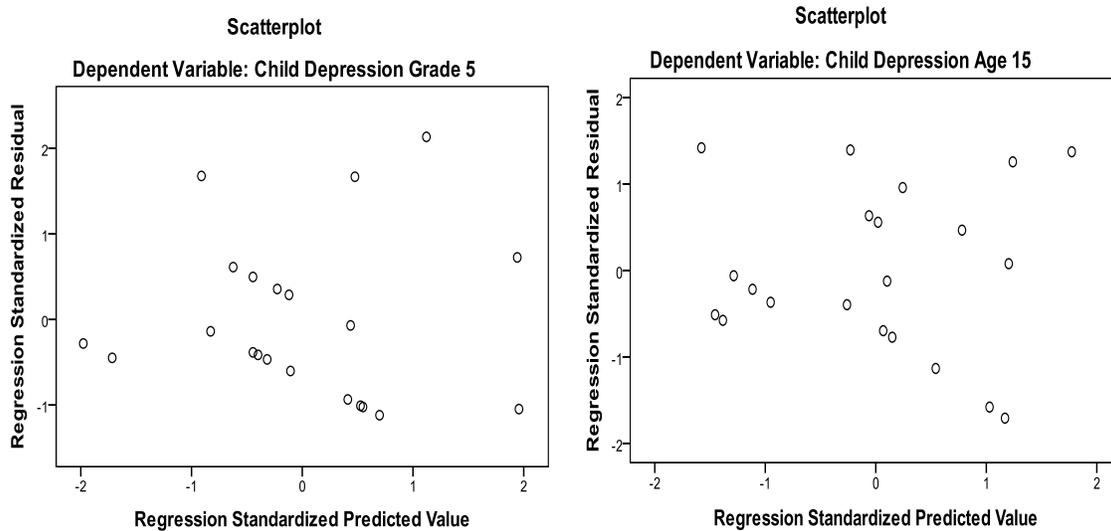| Measure	Range	Skewness		Kurtosis	
		Value	Standard Error	Value	Standard Error
Loneliness Grade 3	17-57	.868	.501	.790	.972
Loneliness Grade 5	16-57	.603	.501	1.039	.972
Loneliness Age 15	16-50	-.229	.501	-1.046	.972
Depression Grade 5	0-5	1.092	.501	.859	.972
Depression Age 15	0-8	.670	.501	-.099	.972

Figure 1 Scatterplots of residuals versus predicted values of dependent variable

Research Question One Results

The first research question concerned the relationship between loneliness and the developmental period of the study's participants. Repeated measures analysis was conducted to assess within and between group differences in loneliness at time 1 (3rd grade), time 2 (5th grade), and time 3 (age 15). As previously mentioned, Mauchly's Test of Sphericity was not significant, so no adjustments were necessary. No significant within subjects effects were found. A significant between subjects main effect of rejection group (aggressive rejected, withdrawn rejected) was found, $F(1, 17) = 7.358$, $p = .015$. At time 1, 2, and 3, withdrawn rejected children reported greater loneliness than aggressive rejected children. There were no significant gender differences or an interaction between rejection group and gender.

Research Question Two Results

Research question two was designed to explore if there was a relationship between loneliness and depressive symptoms. An ANCOVA was first conducted to control for initial depression. The covariate was initial depression measured by the Anxious/Depressed scale on Teacher Report Form completed when the participant was in kindergarten. Results were not significant. Next, participants' loneliness scores from third grade and fifth grade were used to predict depression at fifth grade. The results of the hierarchical regression were significant, $F(2, 18) = 4.133$, $p < .05$. As shown in Table 7, depression at grade 5 was uniquely predicted by loneliness at grade 5, ($p < .05$).

Table 7

Regression Analysis for Loneliness Variables Predicting Depression at Grade 5

Variable	B	Standard Error B	Beta	T	Sig.
Loneliness Grade 3	.023	.028	.173	.822	.422
Loneliness Grade 5	.065	.029	.472	2.239	.038

For the second hierarchical regression analysis, loneliness scores from fifth grade and age 15 were used to predict depression at age 15. This model also reached significance, $F (2, 18) = 8.422, p < .01$. Loneliness at age 15 appears to be the best predictor of depression at age 15, $(p = .002)$. Table 8 illustrates these findings.

Table 8

Regression Analysis for Loneliness Variables Predicting Depression at Age 15

Variable	B	Standard Error B	Beta	T	Sig.
Loneliness Grade 5	-.027	.048	-.116	-.562	.581
Loneliness Age 15	.151	.041	.754	3.664	.002

Summary

The overall findings of the study provide evidence of the connection between peer rejection, loneliness, and depressive symptoms in children and adolescents. The first research question investigated the pattern of loneliness over developmental period and yielded significant results indicating that withdrawn rejected children reported a higher degree of loneliness than aggressive rejected children over time. No significant gender differences were found. The second research question, which assessed the potential relationship between loneliness and depressive symptoms, was also supported by significant results. Loneliness does appear to predict depression.

CHAPTER V

Discussion

The purpose of this study was to better understand how children and adolescents are impacted by peer rejection by examining the interrelationship between peer rejection, loneliness, and depressive symptoms. The tremendous impact of peer rejection on children's lives cannot be ignored or underestimated. Peer relationship problems can lead to a host of problems, including internalizing difficulties such as loneliness, anxiety, or depression (Boivin et al., 1995; Parker et al., 1995). Although research on peer rejection and externalizing problems is extensive, research on internalizing difficulties does not have such a rich history. However, studies have begun to provide evidence that children experience loneliness (Asher et al., 1984; Berguno et al., 2004) and depression (Birmaher et al., 1996a; Garber, 2000). In fact, loneliness and depression are becoming more common among young people (Asher et al., 1990; Birmaher et al., 1996a; Garber, 2000). Due to the alarming rates of loneliness and depression, further examination of the interrelationship between peer rejection, loneliness, and depression in children and adolescents is warranted.

Loneliness over Time

The first research question examined the pattern of loneliness across developmental periods. Gender differences and rejection group differences in loneliness at time 1 (grade 3), time 2 (grade 5), time 3 (age 15) were assessed. Loneliness was expected to persist and increase over time. It was hypothesized that withdrawn rejected children would experience greater loneliness than aggressive rejected children. Consistent with past studies (Boivin et al., 1994; Boivin & Hymel, 1997; Parkhurst &

Asher, 1992), this hypothesis was supported by results of the analyses. In fact, at all three time periods, withdrawn rejected children reported a higher degree of loneliness than aggressive rejected children. No significant gender differences were found.

There are several possible explanations for these findings. The accuracy of children's perceptions of their peer acceptance may have played a role. Research has shown that withdrawn rejected children are more realistic and accurate in their self-perceptions than aggressive rejected children (Hymel et al., 1993). Aggressive rejected children tend to not recognize their poor peer relationships (Patterson et al., 1990) and may overestimate their status among peers (Hymel et al., 1993; Rubin et al., 1998; Zakriski & Coie, 1996). These inaccurate perceptions may be due to self-protective errors (Zakriski & Coie, 1996) or an unwillingness to acknowledge their peer difficulties (Boivin & Hymel, 1997). Aggressive rejected children may also possess more stable friendships that lessen their feelings of loneliness (Cairns et al., 1988). Unfortunately, this study did not examine other relationships that children may have that may impact whether loneliness or depression is experienced.

Another explanation of the loneliness differences between rejected children may involve their attributions regarding their rejection. Withdrawn rejected children tend to make internal, global, and stable attributions for their peer difficulties (Rubin et al., 1998). In other words, they may believe that their peer difficulties are caused by their behavior and blame themselves for their rejection (Hymel et al., 1993; Renshaw & Brown, 1993). In this sense, their greater tendency to experience internalizing problems such as loneliness and depression is understandable. In contrast, aggressive rejected children tend to have negative attributional biases and negatively interpret other's

behavior towards them (Dodge, 1980; Dodge & Frame, 1982). Consequently, they may blame their low peer acceptance on their peers instead of themselves (Verschueren & Marcoen, 2002).

Loneliness and Depression

A second intent of the study was to explore if there was a relationship between loneliness and depressive symptoms. First, participants' loneliness scores from third grade and fifth grade were used to predict depression at fifth grade. Next, loneliness scores from fifth grade and age 15 were used to predict depression at age 15. It was predicted that participants who experienced loneliness would also report depressive symptoms. Both regression analyses yielded significant results and provided evidence of the connection between loneliness and depression.

The finding of depression in fifth grade children is alarming, but consistent with previous studies of a decrease in the age of onset of depression (Birmaher et al., 1996a; Garber, 2000). At a time when these children are supposed to be enjoying life, they are experiencing significant distress. The presence of depression in adolescence is understandable considering the pubertal changes associated with adolescence as well as the increased focus on self (Fleming & Offord, 1990). However, evidence of loneliness and depression during this stressful developmental period is concerning. These adolescents already had troubled peer relationships, which are likely more distressing in adolescence, when the peer group assumes a more prominent role in terms of its importance and prediction of adjustment. In addition, such individuals lack the social support needed to cope with the stresses associated with adolescence and the transition to junior and senior high school (Coie, 1990).

The presence of depression in children and adolescents is discouraging, especially because such symptoms are often undetectable. The expression of depressive symptoms at a young age often varies and may mirror behaviors typical of normal development. Therefore, the strong connection between loneliness and depression cannot be ignored. If children are experiencing peer rejection and express loneliness, their feelings should not be viewed as transient and taken lightly. Peer rejection and loneliness tend to remain stable and require early intervention. Thus, the first indication of these difficulties should be addressed immediately. Withdrawn rejected children should also be closely monitored because they may be easily overlooked and may be at the most risk for internalizing problems (Deckard, 2001; Rubin et al., 1990; Rubin et al., 1998).

Conclusions

The current findings validate the importance of taking loneliness seriously. This study adds evidence to the extant literature base that loneliness is experienced by children and adolescents. The fact that it can persist and contribute to more serious problems such as depression is troubling. Knowing that the long lasting effects of loneliness may even persist into adulthood (Hymel & Franke, 1985) is evidence enough that loneliness needs to be recognized, acknowledged, and addressed at a young age.

Despite the fact that peer rejection, loneliness, and depression require early intervention, identification of these difficulties is often challenging. As seen in the current study and in past studies, teachers tend not to be the best informants of a child's peer status. For instance in the current study, only 26 of 720 participants were identified by teachers as rejected. Approximately 497 participants were reported to be popular, while 106 were considered to be average. The overrepresentation of popular children

highlights the inaccuracy of teacher ratings. In addition, the underrepresentation of rejected children, particularly withdrawn rejected children and rejected girls is concerning. Teachers spend a considerable amount of time with their students, especially in the elementary years. Therefore, they get to know their students well and should have effective methods to gain a better sense of each student's well-being. As Response to Instruction and Intervention is becoming more prevalent in school systems, Tier I screening for social and emotional functioning is a step in the right direction. However, efforts should also be made to develop better ways to assess these particular difficulties. The use of self-report measures should be strongly encouraged.

Although various interventions have been developed to assist with peer difficulties, many of these strategies do not take into consideration that no two rejected children are alike. Rejected children possess different characteristics and may contribute to their peer difficulties differently (i.e., shyness, social withdrawal, aggressive behavior; Rubin et al., 1990). Such individuals may not even understand why they are not accepted by their peers or how to go about remedying their difficulties (Coie, 1990). Thus, rejected children may require different techniques to ameliorate their difficulties based on their unique needs. As shown in the current study, a child's internal experience of rejection may be a good starting point for determining an appropriate plan of treatment.

As with rejected children, not all lonely children are alike. The source of their loneliness may differ and should be taken into consideration. For instance, one child may be lonely due to lack of peer interactions while another has peer relationships but they are unhealthy and not adequately responsive to their social and emotional needs. Therefore, a combination of interventions should be utilized to assist a child or adolescent

experiencing chronic loneliness (Margolin, 2001; McWhirter, 1990). Strategies might focus on improving a child's social skills such as how to initiate social interactions, maintain conversations, and display appropriate nonverbal communication (McWhirter, 1990). Efforts should also be made to increase peer contacts and relationships. Opportunities should be provided for positive social interactions and a safe environment to practice emerging social skills. Cognitive therapy should also be considered (Dill & Anderson, 1999). Lonely individuals who are rejected by peers tend to blame themselves and engage in self-defeating thought patterns that likely need to be addressed.

It is important to acknowledge that interventions should not be solely devoted to the lonely or rejected child. The role that other children play in maintaining the rejection should not be ignored. As discussed in the literature review, peers may engage in verbal and physical aggression (Perry et al., 1988), limit the availability of social contacts (Coie, 1990), and maintain reputational biases about rejected children that influence how others treat them (Bierman, 2004). Moreover, the school setting may be an ideal setting for prevention programs and interventions to occur.

Limitations

Despite the strengths of the current study, a few limitations should be noted. One limitation is the relatively small sample size. Although the overall dataset contained many participants, only a small number of participants were identified as rejected based on the measures and criteria used in the study. Therefore, the results should be interpreted with caution. The datasets utilized in the current study are based on participants across ten data collection sites across the United States. Much effort was exerted to obtain a large diverse population to allow for generalizability. Nonetheless,

the sample utilized may not be representative of all families. For example, families who were very busy with extracurricular activities may have not had sufficient time to continue participating in the study. It would be interesting to determine the reasons why families did not remain involved in the study.

Another limitation of the study is the method of identifying rejected children. Although a multitude of information was gathered from various people over several years, peer input would have been very beneficial. For instance, participants' sociometric status was derived from teacher reports due to the nature of the study and inability to obtain consent for peers to participate. However, peers ultimately determine a child's acceptance within the peer group and may have provided a clearer picture of how participants are viewed by peers. The study may have also been more informative if participants' sociometric status was assessed periodically over the years to determine if it remained consistent. Studies have shown that the rejected group of children has greater stability than other sociometric group (Coie & Dodge, 1983; Newcomb & Bukowski, 1983), so it is believed that many of those identified as rejected in the current study continued to be so for the duration of the study.

Recommendations for Future Research

Over the past three decades, research on the impact of peers on adjustment has proliferated. More and more studies are focusing on children's internal experiences of peer rejection such as loneliness. Future studies should continue to investigate loneliness, particularly the source of loneliness. For instance, a child may experience loneliness due to the lack of peer relationships or connection with their parents. Another child may have relationships which are not meeting his needs. In contrast, the protective factor of a

relationship may also be an avenue to pursue. It would be interesting to assess if a strong teacher-student relationship provides resilience against the development of loneliness.

Although the NICHD SECC study concluded when participants were adolescents, a follow-up study of participants could be used to determine if loneliness persists into adulthood. More longitudinal studies should be conducted to follow rejected and lonely children to examine if they experience different types of problems after adolescence. Furthermore, studying the relationship between rejected and lonely children's social status, school performance and adult relationships also may be important variables to study in future research.

References

Achenbach, T. M., & Rescorla, L. A. (2001). *Manual for the Achenbach System of Empirically Based Assessment (ASEBA) school-age forms and profiles.* Burlington, VT: University of Vermont, Research Center for Children, Youth, & Families.

American Psychiatric Association (2000). *Diagnostic and statistical manual of mental disorders, Fourth Edition, Text Revision.* Washington, D.C.: Author

Asher, S. R. (1978). Children's peer relations. In M. E. Lamb (Ed.), *Social and personality development* (pp. 91-113). New York: Holt, Rinehart, and Winston.

Asher, S. R. (1983). Social competence and peer status: Recent advances and future directions. *Child Development, 54,* 1427-1434.

Asher, S. R. (1990). Recent advances in the study of peer rejection. In S. R. Asher & J. D. Coie (Eds.), *Peer rejection in childhood* (pp. 3-14). New York: Cambridge University Press.

Asher, S. R., & Hopmeyer, A. (1997). Loneliness in childhood. In G. G. Bear, K. M. Minke, & A. Thomas (Eds.), *Children's needs II: Development, problems, and alternatives* (pp. 279-292). Bethesda, MD: National Association of School Psychologists.

Asher, S. R., & Hymel, S. (1981). Children's social competence in peer relations: Sociometric and behavioral assessment. In J. D. Wine & M. D. Smye (Eds.), *Social competence* (pp. 125-157). New York: Guiford Press.

Asher, S. R., Hymel, S., & Renshaw, R. D. (1984). Loneliness in childhood. *Child Development, 55,* 1456-1464.

Asher, S. R., & Paquette, J. A. (2003). Loneliness and peer relations in childhood.

    Current Directions in Psychological Science, 12, 75-78.

Asher, S. R., Parker, J. G., & Walker, D. L. (1996). Distinguishing friendship from

    acceptance: Implications for intervention and assessment. In W. M. Bukowski, A.

    F. Newcomb, & W.W. Hartup (Eds.), *The company they keep: Friendship during*

    childhood and adolescence (pp. 366-405). New York: Cambridge University

    Press.

Asher, S. R., Parkhurst, J. T., Hymel, S., & Williams, G. A. (1990). Peer rejection and

    loneliness in childhood. In S. R. Asher & J. D. Coie (Eds.), *Peer rejection in*

    childhood (pp. 253-273). New York: Cambridge University Press.

Asher, S. R. & Wheeler, V. A. (1985). Children's loneliness: A comparison of rejected

    and neglected peer status. *Journal of Consulting and Clinical Psychology*, *53,*

    500-505.

Beck, A. T., Steer, R. A., & Brown, G. K. (1996). *Beck Depression Inventory: Manual*

    (2nd ed.). Boston: Harcourt Brace.

Bell-Dolan, D. J., Foster, S. L., & Christopher, J. S. (1995). Girls' peer relations and

    internalizing problems: Are socially neglected, rejected, and withdrawn girls at

    risk? *Journal of Clinical Child Psychology, 24,* 463-473.

Berguno, G., Leroux, P., McAinsh, K., & Shaikh, S. (2004). Children's experience of

    loneliness at school and its relation to bullying and the quality of teacher

    interventions. *The Qualitative Report, 9,* 483-499. Retrieved from

    http://www.nova.edu/sss/QR/QR9-3/berguno.pdf

Bierman, K. L. (2004). *Peer rejection: Developmental processes and intervention strategies.* New York: The Guilford Press.

Bierman, K. L., Smoot, D. L., & Aumiller, K. (1993). Characteristics of aggressive-rejected, aggressive (nonrejected), and rejected (nonaggressive) boys. *Child Development, 64,* 139-151.

Birch, S. H., & Ladd, G. W. (1996). Interpersonal relationships in the school environment and children's early school adjustment: The role of teachers and peers. In J. Juvonen & K. Wentzel (Eds.), *Social motivation: Understanding children's adjustment* (pp. 199-225). New York: Cambridge University Press.

Birmaher, B., Brent D. A., & Benson, R. S. (1998). Summary of the practice parameters for the assessment and treatment of children and adolescents with depressive disorders. *Journal of American Academy of Child and Adolescent Psychiatry, 37,* 1234-1238.

Birmaher, B., Ryan, N. D., Williamson, D. E., Brent, D. A., Kaufman, J., Dahl, R. E. (1996a). Childhood and adolescent depression: A review of the past 10 years. Part I. *Journal of American Academy of Child & Adolescent Psychiatry*, *35,* 1427-1439.

Birmaher, B., Ryan, N. D., Williamson, D. E., Brent, D.A., and Kaufman, J. (1996b). Childhood and adolescent depression: A review of the past 10 years. Part II. *Journal of American Academy of Child & Adolescent Psychiatry*, *35,* 1575-1583.

Booth, C. L., Rose-Krasnor, L., Rubin, K. H. (1991). Relating preschoolers' social competence and their mothers' parenting behaviors to early attachment security and high-risk status. *Journal of Social and Personal Relationships, 8,* 363-382.

Boivin, M. & Begin, G. (1989). Peer status and self-perception among early elementary

    school children: The case of rejected children. *Child Development, 60,* 591-596.

Boivin, M., & Hymel, S. (1997). Peer experiences and self-perceptions. A sequential

    model. *Developmental Psychology, 33,* 135-145.

Boivin, M., & Hymel, S., & Bukowski, W. M. (1995). The roles of social withdrawal,

    peer rejection, and victimization by peers in predicting loneliness and depressed

    mood in childhood. *Development and Psychopathology, 7,* 765-785.

Boivin, M., Poulin, F., & Vitaro, F. (1994). Depressed mood and peer rejection in

    childhood. *Development and Psychopathology, 6,* 483-498.

Brendgen, M., Little, T. D., & Krappman, L. (2000). Rejected children and their friends:

    A shared evaluation of friendship quality? *Merrill-Palmer Quarterly, 46,* 45-68.

Bullock, J. R. (1998). *Loneliness in young children*. Champaign, IL: University of

    Illinois.

Cairns, R. B., Cairns, B. D., Neckerman, H. J., Gest, S. D., & Louis-Gariepy, J. (1988).

    Social networks and aggressive behavior: Peer support or peer rejection?

    Developmental Psychology, 24, 815-823.

Campbell, S. B. (2002). *Behavior problems in preschool children: Clinical and

    developmental issues* (2nd ed.). New York: Guilford Press.

Cassidy, J., & Asher, S. R. (1992). Loneliness and peer relations in young children. *Child

    Development*, 63, 350-365.

Cicchetti, D., & Toth, S. L. (1998). The development of depression in children and

    adolescents. *American Psychologist, 53,* 221-241.

Cillessen, A. H. N. (1997, April). *Sociometric status, social self-perceptions, and the development of school adjustment in middle childhood.* Paper presented at Biennial Meeting of the Society for Research in Child Development, Washington, D.C.

Cillessen, A. H. N., & Bellmore, A. D. (1999). Accuracy of social self-perceptions and peer competence in middle childhood. *Merrill-Palmer Quarterly, 45,* 650-676.

Cillessen, A. H. N., Terry, R. A., Coie, J. D., & Lochman, J. E. (1992a, April) *Accuracy of teacher-identification of children's sociometric status positions.* Paper presented at the Conference on Human Development, Atlanta, GA.

Cillessen, A. H. N., Van Ijzendoorn, H. W., Van Lieshout, C. F. M., & Hartup, W. W. (1992b). Heterogeneity among peer rejected boys: Subtypes and stabilities. *Child Development, 63,* 893-905.

Coie, J. D. (1990). Towards a theory of peer rejection. In S. R. Asher & J. D. Coie (Eds.), *Peer rejection in childhood* (pp. 365-401). New York: Cambridge University Press.

Coie, J. D., & Dodge, K. A. (1983). Continuities and changes in children's social status: A five year longitudinal study. *Merrill Palmer Quarterly, 29,* 261-281.

Coie, J. D., & Dodge, K. A. (1988). Multiple sources of data on social behavior and social status in the school: A cross-age comparison. *Child Development, 59,* 815-829.

Coie, J. D., & Dodge, K. A. (1998). Aggression and antisocial behavior. In W. Damon (Series Ed.) & N. Eisenberg (Vol. Ed.), *Handbook of child psychology: Vol. 3.*

95

Social, emotional, and personality development (5th ed.) (pp. 779-862). New
York: Wiley.

Coie, J. D., Dodge, K. A., & Coppotelli, H. (1982). Dimensions and types of social
status. A cross-age perspective. *Developmental Psychology, 18,* 557-570.

Coie, J. D., Dodge, K. A., & Kupersmidt, J. B. (1990). Peer group behavior and social
status. In S. R. Asher & J. D. Coie (Eds.) *Peer rejection in childhood* (pp. 17-59).
New York: Cambridge University Press.

Coie, J. D., & Kupersmidt, J. B. (1983). A behavioral analysis of emerging social status.
Child Development, 54, 1400-1416.

Crick, N. R., & Ladd, G. W. (1993). Children's perceptions of their peer experiences:
Attributions, loneliness, social anxiety, and social avoidance. *Developmental
Psychology, 29,* 244-254.

Deckard, K. D. (2001). Annotation: Recent research examining the role of peer
relationships in the development of psychopathology. *Journal of Child
Psychology and Psychiatry, 42,* 565-579.

Denham, S. A., & Holt, R. W. (1993). Preschoolers' likability as cause or consequence of
their social behavior. *Developmental Psychology, 29,* 271-275.

DeRosier, M. E., Kupersmidt, J. B., & Patterson, C. J. (1994). Children's academic and
behavioral adjustment as a function of the chronicity and proximity of peer
rejection. *Child Development, 65,* 1799-1813.

Dill, J. C., & Anderson, C. A. (1999). Loneliness, shyness, and depression: The etiology
and interrelationships of everyday problems in living. In T. Joiner & C. Coyne
(Eds.), *The interactional nature of depression: Advances in interpersonal*

approaches (pp. 93-125). Washington, D.C.: American Psychological

Association.

Dodge, K. A. (1980). Social cognition and children's aggressive behavior. *Child
Development, 51,* 162-170.

Dodge, K. A. (1983). Behavioral antecedents of peer social status. *Child Development,
54,* 1386-1399.

Dodge, K. A., & Frame, C. L. (1982). Social cognitive biases and deficits in aggressive
boys. *Child Development, 53,* 620-635.

Fleming, J. E., & Offord, D.R. (1990). Epidemiology of childhood depressive disorders: a
critical review. *Journal of American Academy of Child & Adolescent Psychiatry,
29,* 571-580.

Fontaine, R. G., Yang, C., Burks, V. S., Dodge, K. A., Price, J. M., Pettit, G. S., & Bates,
J. E. (2009). Loneliness as a partial mediator of the relation between low social
preference in childhood and anxious/depressed symptoms in adolescence.
Development and Psychopathology, 21, 479-491.

French, D. C., & Waas, G. A. (1985). Behavior problem of peer-neglected and peer-
rejected elementary age children: Parent and teacher perspectives. *Child
Development, 56,* 246-252.

Garber, J. (2000). Development and depression. In A. J. Sameroff, M. Lewis, & S. M.
Miller (Eds.) *Handbook of developmental psychopathology* (2nd ed.) (pp. 467-
490). New York: Kluwer Academic/Plenum Publishers.

Harter, S. (1998). The development of self-representations. In W. Damon & N. Eisenberg

    (Eds.) *Handbook of child psychology: Vol. 3. Social, emotional and personality*

    development, (5th ed.) (pp.553-618). New York: Wiley.

Harter, S., & Pike, R. (1984). The Pictorial Scale of Perceived Competence and Social

    Acceptance for Young Children. *Child Development, 55,* 1969-1982.

Hartup, W. W. (1983). Peer relations. In P. H. Mussen & E. M. Hetherington (Eds.)

    Handbook of child psychology: Vol. 4. Socialization, personality, and social

    development (pp. 103-196). New York: Wiley.

Hartup, W. W. (1989). Social relationships and their developmental significance.

    American Psychologist, 44, 120-126.

Hartup, W. W. (1992). Peer relations in early and middle childhood. In V. B. Van Hasselt

    & M. Hersen (Eds.) *Handbook of social development: A lifespan perspective* (pp.

    257-283). New York: Plenum.

Hay, D. F., Payne, A., & Chadwick, A. (2004). Peer relations in childhood. *Journal of*

    Child Psychology and Psychiatry, 45, 84-108.

Hecht, D. B., Inderbitzen, H. M., & Bukowski, A. L. (1998). The relationship between

    peer status and depressive symptoms in children and adolescents. *Journal of*

    Abnormal Child Psychology, 26, 153-160.

Huck, S. W. (2000). *Reading statistics and research* (3rd ed.). New York: Addison

    Wesley Longman, Inc.

Hymel, S. (1986). Interpretations of peer behavior: Affective bias in childhood and

    adolescence. *Child Development, 57,* 431-445.

Hymel, S., Bowker, A., & Woody, E. (1993). Aggressive versus withdrawn unpopular
children: Variations in peer and self perceptions in multiple domains. *Child
Development, 64,* 879-896.

Hymel, S., & Franke, S. (1985). Children's peer relations: Assessing self-perceptions. In
B. H. Schneider, K. H. Rubin, & J. E. Ledingham (Eds.), *Children's peer
relations: Issues in assessment and intervention* (pp. 75-92). New York:
Springer-Verlag.

Hymel, S., Franke, S., & Freigang, R. (1985). Peer relationships and their dysfunction:
Considering the child's perspective. *Journal of Social and Clinical Psychology,
3,* 405-415.

Hymel, S., & Rubin, K. H. (1985). Children with peer relationship and social skills
problems: Conceptual, methodological, and developmental issues. In G. J.
Whitehurst (Ed.), *Annals of child development* (pp. 251-297). Greenwich, CT:
JAI.

Hymel, S., Rubin, K. H., Rowden, L., & LeMare, L. (1990a). Children's peer
relationships: Longitudinal prediction of internalizing and externalizing problems
from middle to late childhood. *Child Development, 61,* 2004-2021.

Hymel, S., Vaillancourt, T., McDougall, P., & Renshaw, P. D. (2002). Peer acceptance
and rejection in childhood. In P. Smith & C. Hart (Eds.), *Blackwell handbook of
childhood social development* (pp. 265-284). London: Blackwell Publishers.

Hymel, S., Wagner, E., & Butler, L. J. (1990b). Reputational bias: View from the peer
group. In S. R. Asher & J. D. Coie (Eds.), *Peer rejection in childhood* (pp. 156-
186). New York: Cambridge University Press.

Kistner, J., Balthazor, M., Risi, S., & Burton, C. (1999). Predicting dysphoria in

    adolescence from actual and perceived peer acceptance in childhood. *Journal of*

    Clinical Child Psychology, 28, 94-104.

Kovacs, M. (1992). *Children's Depression Inventory- Short Form.* North Tonawanda,

    NY: Multi-Health Systems.

Kovacs, M. (1996). Presentation and course of major depressive disorder during

    childhood and later years of the life span. *Journal of American Academy of Child*

    & Adolescent Psychiatry 35, 705-715.

Kovacs, M., Obrosky, D. S., Gatsonis, C., & Richards, C. (1997). First-episode major

    depressive and dysthymic disorder in childhood: Clinical and sociodemographic

    factors in recovery. *Journal of American Academy of Child & Adolescent*

    Psychiatry, 36, 777-784.

Kupersmidt, J. B., Burchinal, M., & Patterson, C. J. (1995). Developmental patterns of

    childhood relations as predictors of externalizing behavior problems.

    Development and Psychopathology, 7, 825-843.

Ladd, G. W. (1990). Having friends, keeping friends, making friends, and being liked by

    peers in the classroom: Predictors of children's early school adjustment? *Child*

    Development, 61, 1081-1100.

Ladd, G. W., & Coleman, C. C. (1993). Young children's peer relationships: Forms,

    features, and functions. In B. Spodek (Ed.), *Handbook of research on the*

    education of young children (pp. 57-76). New York: Macmillan Publishing

    Company.

Ladd, G. W., & Price, J. M. (1987). Predicting children's social and school adjustment

    following the transition from preschool to kindergarten. *Child Development, 58,*

    1168-1189.

Ladd, G. W., Price, J. M., & Hart, C. H. (1988). Predicting preschoolers' peer status from

    their playground behaviors. *Child Development, 59,* 986-992.

LaFreniere, P. J., & Sroufe, L. A. (1985). Profiles of peer competence in the preschool:

    Interrelations between measures, influence of social ecology, and relation to

    attachment history. *Developmental Psychology, 21,* 56-69.

Lewinsohn, P. M., Clarke, G. N., Seeley J. R., & Rhode, P. (1994). Major depression in

    community adolescents: Age at onset, episode duration, and time to recurrence.

    Journal of American Academy of Child & Adolescent Psychiatry, 33, 809-818.

Luby, J., Si, X., Belden, A., Tandon, M., & Spitznagel, E. (2009). Preschool depression:

    Homotypic continuity and course over 24 months. *Archives of General*

    Psychiatry, 66, 897-905

Margolin, S. (2001). Interventions for nonaggressive peer-rejected children and

    adolescents: A review of the literature. *Children & Schools, 23,* 143-159.

Martin, R. P. (1986). Assessment of the social and emotional functioning of preschool

    children. *School Psychology Review, 15,* 216-232.

McCauley, E., Myers, K., Mitchell, J., Calderon, R., Schloredt, K., & Treder, R. (1993).

    Depression in young people: initial presentation and clinical course. *Journal of*

    American Academy of Child & Adolescent Psychiatry, 32, 714-722.

McGee, R., & Williams, S. (1988). A longitudinal study of depression in nine year old

    children. *Journal of American Academy of Child & Adolescent Psychiatry, 27,*

    342-348.

McWhirter, B. T. (1990). Loneliness: A review of current literature with implications for

    counseling and research. *Journal of Counseling and Development, 68,* 417-422.

Newcomb, A. F., & Bukowski, W. M. (1983). Social impact and social preference as

    determinants of children's peer group status. *Developmental Psychology, 19,* 856-

    867.

Newcomb, A. F., Bukowski, W. M., & Pattee, L. (1993). Children's peer relations: A

    meta-analytic review of popular, rejected, neglected, controversial, and average

    sociometric status. *Psychological Bulletin, 113,* 99-128.

NICHD Study of Early Child Care Research Network. (n.d.). *Phase II:*

    Instrument Document. Retrieved July 7, 2009 from http://secc.rti.org/

NICHD Study of Early Child Care Research Network. (n.d.). *Phase III:*

    Instrument Document. Retrieved July 7, 2009 from http://secc.rti.org/

NICHD Study of Early Child Care Research Network. (n.d.). *Phase IV:*

    Instrument Document. Retrieved July 7, 2009 from http://secc.rti.org/

Ollendick, T. H., Weist, M. D., Borden, M. C., & Greene, R. W. (1992). Sociometric

    status and academic, behavioral, and psychological adjustment: A five year

    longitudinal study. *Journal of Consulting and Clinical Psychology, 60,* 80-87.

Panak, W. F., & Garber, J. (1992). Role of aggression, rejection, and attributions in the

    prediction of depression in children. *Development and Psychopathology, 4,* 145-

    165.

Parker, J. G., & Asher, S. R. (1987). Peer relations and later personal adjustment: Are low accepted children at risk? *Psychological Bulletin, 102,* 357-389.

Parker, J. G., & Asher, S. R. (1993). Friendship and friendship quality in middle childhood. Links with peer group acceptance and feelings of loneliness and social dissatisfaction. *Developmental Psychology, 29,* 611-621.

Parker, J. G., Rubin, K. H., Price, J., & DeRosier, M. E. (1995). Peer relationships, child development and adjustment: A developmental psychopathology perspective. In D. Cicchetti & D. Cohen (Eds.), *Developmental psychopathology, Vol. 2: Risk, disorder, and adaptation* (pp. 96-161). New York: Wiley.

Parkhurst, J. T. & Asher, S. R. (1992). Peer rejection in middle school: Subgroup differences in behavior, loneliness, and interpersonal concerns. *Developmental Psychology*, *28*, 231-241.

Patterson, C. J., Kupersmidt, J. B., & Griesler, P. C. (1990). Children's perceptions of self and of relationships with others as a function of sociometric status. *Child Development, 61,* 1335-1349.

Perry, D. G., Kusel, S. J., & Perry, L. C. (1988). Victims of peer aggression. *Developmental Psychology, 24,* 807-814.

Phillipsen, L. C., Bridges, S. K., McLemore, T. G., & Saponaro, L. A. (1999). Perceptions of social behavior and peer acceptance in kindergarten. *Journal of Research in Childhood Education, 14,* 68-77.

Qualter, P., Brown, S. L., Munn, P., & Rotenberg, K. J. (2010). Childhood loneliness as a predictor of adolescent depressive symptoms: An eight year longitudinal study. *European Child & Adolescent Psychiatry, 19,* 493-501.

Rabiner, D. L., & Keane, S. P. (1993, March). *Children's perceptions of their treatment by peers in relation to their sociometric status.* Paper presented at the Biennial meeting of the Society for Research in Child Development, New Orleans, LA.

Renshaw, P. D., & Brown, P. J. (1993). Loneliness in middle childhood: Concurrent and longitudinal predictors. *Child Development, 64,* 1271-1284.

Reynolds, W. M. (1986). *Reynold's Adolescent Depression Scale.* Odessa, Fla.: Psychological Assessment Resources.

Reynolds, W. M. (1989). *Reynold's Child Depression Scale.* Odessa, Fla.: Psychological Assessment Resources.

Reynolds, W. M., & Johnston, H. F. (1994). The nature and study of depression in children and adolescents. In W. M. Reynolds & H. F. Johnston (Eds.), *Handbook of depression in children and adolescents* (pp. 3-17). New York: Plenum Press.

Rubin, K. H., Bukowski, W., & Parker, J. G. (1998) Peer interactions, relationships, and groups. In W. Damon & N. Eisenberg (Eds.) *Handbook of child psychology: Vol. 3. Social, emotional, and personality development* (5th ed.) (pp.619-700). New York: Wiley.

Rubin, K. H., LeMare, L., & Lollis, S. (1990). Social withdrawal in childhood: Developmental pathways to peer rejection. In S. R. Asher & J. D. Coie (Eds.), *Peer rejection in childhood* (pp. 217-249). New York: Cambridge University Press.

Rubin, K. H., & Mills, R. S. L. (1988). The many faces of social isolation in childhood. *Journal of Consulting and Clinical Psychology, 56,* 916-924.

Rubin, K. H., & Mills, R. S. L. (1991). Conceptualizing developmental pathways to internalizing disorders in childhood. *Canadian Journal of Behavioral Science, 23,* 300-317.

Rutter, M. (1986). The developmental psychopathology of depression: Issues and perspectives. In M. Rutter, C. E. Izard, & P. B. Read (Eds.), *Depression in young people: Developmental and clinical perspectives* (pp. 3-30). New York: Guilford Press.

Sanderson, J. A., & Siegal, M. (1995). Loneliness and stable friendship in rejected and nonrejected preschoolers. *Journal of Applied Developmental Psychology, 16,* 555-567.

Sandstrom, M. J., & Zakriski, A. L. (2004). Understanding the experience of peer rejection. In J. B. Kupersmidt & K. A. Dodge (Eds.), *Children's peer relations: From development to intervention* (pp. 101-118). American Psychological Association.

Sanford, M., Szatmari, P., Spinner, M., Munroe-Blum, H., Jamieson, E., Walsh, C., & Jones, D. (1995). Predicting the one-year course of adolescent major depression. *Journal of American Academy of Child & Adolescent Psychiatry, 34,* 1618-1628.

Stark, K. D., Sommer, D., Bowen, B., Goetz, C., Doxey, M. A., & Vaughn, C. (1997). Depressive disorders during childhood. In G. G. Bear, K. M. Minke, & A. Thomas (Eds.), *Children's needs II: Development, problems, and alternatives* (pp. 349-360). Bethesda, MD: National Association of School Psychologists.

Stevens, J. P. (2002). *Applied multivariate statistics for the social sciences.* Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Vershueren, K., & Marcoen, A. (2002). Perceptions of self and relationship with parents in

    aggressive and nonaggressive rejected children. *Journal of School Psychology,*

    40, 501-522.

Zakriski, A. L., & Coie, J. D. (1996). A comparison of aggressive-rejected and

    nonaggressive-rejected children's interpretations of self-directed and other-

    directed rejection. *Child Development, 67,* 1048-1070.