ABSTRACT

The relation of social withdrawal to psychopathology and adjustment problems is unclear; whereas it is not a classifiable disorder in itself, it is an associated symptom of several disorders and is a frequent reason for referral for mental health evaluation. Research evidence also is ambiguous as to whether social withdrawal is related to maladaptation. Subtypes of social withdrawal have been proposed to help clarify the issue. The first manuscript presented reviews the literature and examines theories that support three subtypes of social withdrawal. Discussion focuses on the usefulness of the developmental psychopathology perspective in understanding the relationship between social withdrawal and psychological adjustment. The second manuscript uses peer behavior nominations as well as teacher ratings and self-reports to examine psychological adjustment levels of peer-identified socially withdrawn subtypes. Results indicated that a cluster solution which includes five socially-withdrawn clusters was most stable and that two of those five clusters were at-risk for psychological maladjustment. A summary of the findings of the two studies as well as future direction of social withdrawal research concludes the dissertation.

INDEX WORDS: Social withdrawal, Developmental Psychopathology, Subtypes, Psychological Adjustment, Middle Childhood
THE CLINICAL SIGNIFICANCE OF SOCIAL WITHDRAWAL

by

KAREN TALLEY MUSGROVE
A.B., The University of Georgia, 1998
M.A., The University of Georgia, 2001

A Dissertation Submitted to the Graduate Faculty of The University of Georgia in Partial
Fulfillment of the Requirements for the Degree

DOCTOR OF PHILOSOPHY

ATHENS, GEORGIA
2003
THE CLINICAL SIGNIFICANCE OF SOCIAL WITHDRAWAL

by

KAREN TALLEY MUSGROVE

Major Professor: A. Michele Lease
Committee: Randy W. Kamphaus
Roy P. Martin
Jonathan Campbell
Laura McCormick

Electronic Version Approved:
Maureen Grasso
Dean of the Graduate School
The University of Georgia
December 2003
ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to my committee for their guidance, feedback, and support. Special thanks go to Dr. Michele Lease who dedicated a great deal of her time, effort, and talent to this document. She has served as my teacher, mentor, and friend in this endeavor. Thank you as well to the lab group, especially Beth, Will, Jamilia, Mandy, and Angie for encouragement and great ideas. I would also like to thank my husband, Bryan, and my father, Bruce Talley, for their patience, support, and love over the past five years. Finally, I would like to thank Max and Guen for purrs and a warm lap while working at my computer.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>ACKNOWLEDGEMENTS</th>
<th>iv</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CHAPTER</strong></td>
<td></td>
</tr>
<tr>
<td><strong>1</strong> DISSESSATION INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>- The Relevance of Social Withdrawal to School Psychology</td>
<td>2</td>
</tr>
<tr>
<td>- The Meaning of Clinical Significance</td>
<td>3</td>
</tr>
<tr>
<td>- Overview of the Manuscripts</td>
<td>6</td>
</tr>
<tr>
<td>- References</td>
<td>8</td>
</tr>
<tr>
<td><strong>2</strong> SOCIAL WITHDRAWAL AND PSYCHOLOGICAL ADJUSTMENT: SUBTYPE</td>
<td>10</td>
</tr>
<tr>
<td>- THEORY AND RESEARCH</td>
<td></td>
</tr>
<tr>
<td>- Introduction</td>
<td>12</td>
</tr>
<tr>
<td>- Peer Relationships, Social Withdrawal, and Development</td>
<td>13</td>
</tr>
<tr>
<td>- Terms for Low Rates of Interaction</td>
<td>15</td>
</tr>
<tr>
<td>- Social Withdrawal and Psychopathology</td>
<td>18</td>
</tr>
<tr>
<td>- Outcomes of Social Withdrawal</td>
<td>34</td>
</tr>
<tr>
<td>- Conclusion</td>
<td>36</td>
</tr>
<tr>
<td>- References</td>
<td>38</td>
</tr>
<tr>
<td><strong>3</strong> THE CLINICAL SIGNIFICANCE OF SOCIAL WITHDRAWAL: ANALYSIS OF PEER-NOMINATED SUBTYPES</td>
<td>47</td>
</tr>
<tr>
<td>- Introduction</td>
<td>49</td>
</tr>
</tbody>
</table>
CHAPTER 1

DISSERTATION INTRODUCTION
The Relevance of Social Withdrawal to School Psychology

The behavior of social withdrawal warrants the attention of school psychologists for at least two reasons. One reason is because such behavior is a major concern of teachers and other school personnel. A study by Hutton (1985) found that social withdrawal is the fifth most frequent reason for referring a student for mental health evaluation in school, with problems with peer relationships as the most frequent reason. Furthermore, a recent publication by the U.S. Department of Education lists social withdrawal as one of the sixteen early warning signs of a potentially violent student (Dwyer & Osher, 2000). Several other warning signs include excessive feelings of rejection, being a victim of violence, and feelings of being picked on and persecuted, which are closely related to difficulties with peer relationships and may be associated with social withdrawal. This does not mean that all or even the majority of socially withdrawn children are likely to become violent offenders on school grounds, that social withdrawal is a cause of violent behavior, or vice versa. However, when teachers and administrators become concerned about a particular child due to socially withdrawn behavior, it is certainly beneficial for mental health professionals to have knowledge of why a child is exhibiting withdrawn behavior and what the possible outcomes of such behavior may be.

A second reason that school psychologists should be knowledgeable about social withdrawal in students is because there is a need to educate school personnel about such behavior. In contrast to the fact that teachers find social withdrawal a concern, there is evidence that school personnel are not ideal reporters of such behavior. For example, Serbin, Marchessault, McAffer, Peters, and Schwartzman (1993) found that teacher ratings of social withdrawal correlated weakly with playground observations of withdrawn behavior. This is in contrast to peer ratings, which have been shown to agree more highly with observation methods.
in the identification of withdrawn and aggressive-withdrawn children (Serbin, Lyons, Marchessault, Schwartzman, & Ledingham, 1987). It has been hypothesized that peers may be better raters of social withdrawal than teachers because they have more access to unstructured settings in which social withdrawal is more evident, such as the playground and lunchroom (Serbin et al., 1993). However, peer data can be difficult to collect, score, and use by school personnel who wish to make decisions about the social activities of individual students. Therefore, school psychologists should educate school personnel as to what to look for and when such behavior may be of concern.

In spite of the fact that school personnel should be educated as to the clinical significance of social withdrawal, such behavior, along with internalizing symptoms, tends to be neglected within both clinical settings and research literature compared to externalizing behaviors (Rubin & Mills, 1991). Rubin and Mills (1991) hypothesize that this is due to several reasons, including the ease with which externalizing symptoms can be detected due to their overt nature, the stability of externalizing behaviors, and because externalizing symptoms are of much more concern in our society. Therefore, more insight into what socially withdrawn behavior means and how to address it is needed in order to properly inform school personnel.

The Meaning of Clinical Significance

The primary goal of this dissertation was to examine the clinical significance of social withdrawal in school-aged children, both from a theoretical perspective and an empirical one. However, before judgments can be made about the clinical significance of social withdrawal, it is logical to discuss the meaning of clinical significance. A very strict definition of clinical significance is when "once troubled and disordered clients are now, after treatment, not distinguishable from a meaningful and representative nondisturbed reference group" (Kendall &
Grove, 1988, p. 148). Using a more general perspective, the term clinical significance typically refers to the degree to which a symptom, behavior, or emotion is indicative of a known disorder, and may refer to the frequency, intensity, and/or duration of the symptom. It is frequently used in contrast to “statistical significance” which describes “an observed difference or relationship among variables that is unlikely to be due to chance” (Harris, 1995).

Although social withdrawal is not a core symptom of any diagnosable disorder, it is often treated as a marker of maladjustment. It is an associated symptom of a wide range of disorders, such as major depression and dysthymia, autism, the personality disorders, and various anxiety disorders (American Psychiatric Association Diagnostic and Statistical Manual of Mental Disorders- Fourth Edition, 1994). Although the exact clinical significance of socially withdrawn behavior is unclear, it generally is perceived as deviant behavior. Indeed, introverts (i.e those who turn inward for energy, and thus need to spend time alone to reenergize) are in the minority compared to extroverts (i.e. those who turn to others for energy, and thus need to spend time with others to reenergize) (Kurcina, 1991). Furthermore, “it is frequently the introvert who is misunderstood and pressured to shape up” (Kurcina, 1991, p. 54). Similarly, many developmental psychopathology texts treat shyness/withdrawal as an indicator of maladjustment, and sometimes devote entire chapters to the subject. In the peer relations literature, shyness and withdrawal are also treated as an indicator of social maladjustment. For children who are rejected by peers, they are usually (but not always) categorized into one of three groups: aggressive, withdrawn, and aggressive/withdrawn, thus implying that such behavior is implicitly associated with peer rejection.

According to some developmental psychopathology theorists, deviant behavior is only part of the determination of the existence of a disorder. Wakefield argues that in addition to
developmental deviation, it must also be determined which kinds of deviations are disorders (Wakefield, 1997). Wakefield further argues that even if a deviant behavior predicts maladjustment, more information is needed to determine the existence of a disorder due to the fact that such a definition would lead to infinite regress (Wakefield, 1997). Consistent with this idea, the DSM-IV clarifies that “neither deviant behavior nor conflicts that are primarily between the individual and society are mental disorders unless the deviance or conflict is a symptom of a dysfunction in the individual . . . ” (DSM-IV, pp. xxi- xxii).

One response to what does define a disorder is offered in the Harmful Dysfunction analysis (Wakefield, 1997). Accordingly, a disorder is not a disorder until two criteria are met: 1) harm which is “judged according to social values” and 2) a dysfunction which is “the failure of an internal mental or physical mechanism to perform a function for which it was naturally selected” (Wakefield, 1997, p. 269). Whether social withdrawal fits the description of a “harmful dysfunction” is debatable. First of all, it is difficult to know whether the behavior is the result of a failure of a mental function. More information about context, function, and related behavior patterns would help in making such a determination. To determine whether socially withdrawn behavior is harmful to the individual (i.e. the second criterion) would again seem to require a description of the context of the behavior and the effects it has on the child. Socially withdrawn behavior could serve an adaptive function or be a sign of impairment, depending upon the function and the effects of the behavior.

Other factors to be considered are the intensity and frequency of the deviance, as “often children qualifying for a diagnosis are quantitatively, not qualitatively, different from other children” (Sroufe, 1997, p. 264). A child who is socially withdrawn part of the time or only in particular settings may not qualify as having an impairment, whereas a child who withdraws
more frequently and more broadly may be considered impaired. Similarly, a child who is quiet and shy but who interacts with others when prompted might not be considered to be displaying disordered behavior, whereas a child who more actively avoids others would be considered to demonstrate a clinically significant behavior problem.

To summarize, knowing where to draw the line between deviant and disordered behavior can be unclear. However, considering the context and setting of socially withdrawn behavior, associated proximal and distal behaviors of the child, and frequency and intensity of the withdrawal are important pieces of information for judging whether a socially withdrawn child may be demonstrating disordered behavior.

Overview of the Manuscripts

This dissertation is comprised of two manuscripts that will be submitted for peer review and publication, in which the subject of social withdrawal in relation to psychological adjustment is addressed. One theme throughout is the use of subtypes in understanding social withdrawal. By examining subtypes of social withdrawal (profiles of children who exhibit differing patterns of withdrawal), the goal was to understand how some manifestations of social withdrawal may be clinically significant, whereas others may not be considered disordered. Subtypes were examined from a theoretical perspective in the first manuscript. In addition to theories, etiologies, and pathways, some empirical results are presented for three subtypes that have previously been found in the literature. A discussion of why the developmental psychopathology perspective, including the ideas of equifinality and multifinality, is ideal for conceptualizing differences in the psychological adjustment of socially withdrawn children is included in this manuscript. Subtypes are further studied in an empirical manner in the second manuscript in
which the psychological adjustment of peer-nominated clusters of socially withdrawn children is examined.

An additional theme discussed in both manuscripts is the impact of developmental age on the expected outcomes for socially withdrawn children. As discussed above, the context and setting of a behavior is important when considering clinical significance. It may be that social withdrawal has a different impact on psychological health depending upon the age of the child. The first manuscript will discuss theory and evidence indicating that certain socially withdrawn subtypes may be more at-risk for internalizing difficulties in middle childhood versus early childhood, whereas others are more at risk for externalizing difficulties throughout childhood. The second manuscript examines social withdrawal in a sample of nine through twelve-year-old children, an age at which social interaction is a primary social learning task and when peer perceptions can have a significant impact on the developing self-concept (Rubin et al., 1998).

Finally, the dissertation is concluded with a summary of the findings of the two manuscripts, their possible impact on current literature, and ideas for future areas of research.
References


CHAPTER 2
SOCIAL WITHDRAWAL AND PSYCHOLOGICAL ADJUSTMENT:
SUBTYPE THEORY AND RESEARCH

1Musgrove, K.T. & A.M. Lease. To be submitted to School Psychology Quarterly
Abstract

The relation of social withdrawal to psychopathology and adjustment problems is unclear; whereas it is not a classifiable disorder in itself, it is an associated symptom of several disorders and is a frequent reason for referral for mental health evaluation. Research evidence also is ambiguous as to whether social withdrawal is related to maladaptation. Subtypes of social withdrawal have been proposed to help clarify the issue. In this review, theory and research results in the area of social withdrawal are presented within the contexts of peer relationships, development, and developmental psychopathology. Subtype research is reviewed and conclusions about the relation between social withdrawal and psychological adjustment are presented.

KEYWORDS: social withdrawal, subtypes, developmental psychopathology, middle childhood.
Introduction

Among internalizing symptoms, social withdrawal is unique in that it is not a core symptom of any diagnosable disorder, unlike anxiety or depression. Yet it is an associated symptom of a wide range of disorders, such as major depression and dysthymia, autism, the personality disorders, and various anxiety disorders (American Psychiatric Association Diagnostic and Statistical Manual of Mental Disorders- Fourth Edition, 1994). The precise role that social withdrawal plays in psychological maladjustment appears to be complex. It might be that social withdrawal is a benign behavior for some children; on the other hand, for some children it might be a symptom of an underlying disorder.

Internalizing symptoms, such as anxiety, depression, and social withdrawal, tend to be overlooked both clinically and in research literature. This is due in part to the fact that internalizing behaviors have been viewed historically as unstable (e.g. Kohlberg, LaCrosse, & Ricks, 1972). Furthermore, early research indicated that social withdrawal is not predictive of more serious maladjustment into adolescence or adulthood, including anxiety and mood disorders, and therefore, does not merit the same research attention as acting-out, externalizing behaviors, such as aggression (Rubin & Mills, 1991). However, social withdrawal continues to be a behavior of concern; in fact, one study found that social withdrawal was the fifth most frequent reason for referring a student for mental health evaluation in school, and problems with peer relationships was the most frequent reason (Hutton, 1985). More broadly, poor peer relationships in general tend to be predictive of adjustment problems (see Parker & Asher, 1987 for a review).

The purpose of this review was to examine the behavior of social withdrawal in the context of peer relationships, development, and psychopathology. Subtype research is presented,
including theory, empirical findings, and the way in which the developmental psychopathology perspective can help clarify the relation between social withdrawal and psychological adjustment. Finally, conclusions regarding the current state of social withdrawal research are presented.

Peer Relationships, Social Withdrawal and Development

There is little doubt that the formation and maintenance of peer relationships in childhood is vitally important to individual development. It has been widely hypothesized that “experiences with peers directly promote, extend, discourage, or distort children’s interpersonal and intrapersonal growth and adjustment” (Parker, Rubin, Price, & DeRosier, 1995, p. 96). Research evidence from the 1960s and 1970s has suggested that interaction with peers is important for the development of social competence and social skills, such that these factors affect an individual’s long-term adjustment (Ladd, 1999). One theory is that poor peer relationships serve as marker of future adjustment problems (Burks, Dodge, & Price, 1995). Rejection by peers might indicate that the rejected child has stable, negative behaviors that will be expressed as problematic outcomes later in life (Burks et al., 1995). Another theory purports that children who are poorly-accepted or have low rates of interaction miss out on social learning opportunities and, thus, deviate from normal developmental paths (Parker & Asher, 1987). Thus, poor peer relations are thought to serve a causal role in later maladjustment. In addition, because academic learning often takes place in a social context, it is believed that poor peer relationships can also affect academic achievement (Parker & Asher, 1987). Several reviews of the peer relations literature have confirmed that the formation of peer relationships and social maladjustment are linked, though the relationship is complex (see Deater-Deckard, 2001; Ladd, 1999; Parker, Rubin, Price, & DeRosier, 1995; Parker & Asher, 1987).
Many early theorists have asserted that the formation of peer relationships facilitate not only social, but also cognitive and moral, development. Rubin and colleagues cite Piaget, Mead, Sullivan, and social learning theorists as major contributors to ideas of the developmental significance of peer relationships (Rubin, Bukowski, & Parker, 1998; Rubin, Coplan, Nelson, Cheah, & Legace-Seguin, 1999). Piaget believed that because peer relationships are horizontal, or egalitarian, as opposed to vertical, as in adult relationships, children are free to openly criticize and disagree with each other with regard to opinions (Rubin et al., 1998). This creates disequilibrium and promotes negotiation and compromise between parties. Neo-Piagetian research has supported the idea that children do in fact make cognitive advances through cooperative discussion (Rubin et al, 1998). Mead, a symbolic interactionist, believed that interactions with peers allows one to develop one’s self-concept, one’s perception of oneself, as well as a concept of the “other,” including the ability to take the perspective of another person (Rubin et al., 1998; 1999). Sullivan, a personality theorist, believed that peer relationships were vital to the formation of a sense of well-being, and that children who are isolated from peers were at risk for loneliness and “psychological ill-being” (Rubin et al., 1998, p. 628). Finally, social learning theorists posited that peer relationships were important because children learn new behaviors by watching each other (Rubin et al., 1998). Thus, children with fewer opportunities to interact with other children consequently have fewer opportunities to learn cognitively, socially, and morally from their peers.

Although the majority of research conducted in the area of peer relations has addressed aggressive behavior and peer rejection, socially withdrawn behavior in children increasingly is a major area of study. This is because of the emphasis that has been placed on the need for social interaction with others for normal social development. In both prospective studies as well as
retrospective studies linking peer relationships with adult maladjustment, shy/withdrawn behavior has been listed as a major difficulty, along with aggressiveness and being disliked by peers (Hartup, 1992).

**Terms for Low Rates of Interaction**

One complicating issue in the literature is that there has been a lack of a consistent, universally-applied definition of social withdrawal. Researchers have used various terms, such as social isolation, shyness, and inhibition interchangeably with the term “social withdrawal,” all of which carry slightly different meanings. Whereas all of the above terms seem to be related, they might refer to children who in actuality differ from each other. Consequently, the type (and existence of) any underlying psychological problems might be different as well. For example, the inhibited child who is wary and fearful might be more prone to internalizing disorders than the child who is isolated as a result of peer rejection, who might actually be isolated due to a preexisting externalizing disorder. Furthermore, confusion between terms can hamper research efforts in this area. According to Wakefield, “If the concepts that are used in constructing the field’s basic assertions are ambiguous, confused, or unclear, then the coherence, integrity, and explanatory power of the field might be called into question” (1997, p. 270). A brief review of some common terms that refer to low rates of interaction is provided below.

**Inhibition**

Behavioral inhibition in children is characterized similar to shyness, reticence, and social withdrawal in that it is the tendency to become quiet, cease activity, and avoid social contact (Kagan, Reznick, Clarke, Snidman, & Garcia-Coll, 1984). However, it generally has two features that distinguish it from other terms for low rates of interaction. First, inhibition generally refers to the avoidance of novel or unfamiliar stimuli (Kagan, et al., 1984). This could
be in the form of new people, new situations, or new events (Kagan, 1999). Second, inhibition can be operationalized as a physiological reaction or an observable behavior response; much of the research on inhibited children has involved studying the correlation between inhibited behavior and heightened physiological reactivity, such as an increase in heart rate and muscle tension (Kagan, Reznick, & Snidman, 1987; Marshall & Stevenson-Hinde, 1998).

**Shyness**

In contrast to the specificity and extremity of behavioral inhibition, shyness denotes more of a general personality quality. According to Zimbardo (1977) approximately 40% of Americans consider themselves shy and 80% would consider themselves shy at some point in their lives. Eysneck and Eysneck (1985) have conceptualized shyness as a combination of introversion (preferring one’s own company) and neuroticism (feelings of inadequacy). Others have described shyness as having a desire for social contact, yet avoiding it due to feelings of anxiety—otherwise referred to as an approach-avoidance conflict (Asendorpf 1990a; 1991). Although shyness appears quite similar to behavioral inhibition, shyness appears to describe avoidant behavior in both novel and familiar social settings, whereas inhibition is thought of as avoidant behavior in multiple types (i.e. social and nonsocial) of unfamiliar settings.

**Isolation**

According to Rubin and Stewart (1996), isolation is characterized as solitary behavior as a result of peer rejection. Thus, isolation has more to do with the peer groups’ reaction to the child than the child’s own behavior. There is a large body of research on peer rejection, including subtypes of rejected children who either are withdrawn or are both and aggressive and withdrawn (see Hoza, Molina, Bukowski, & Sippola, 1995; or Kupersmidt, Coie, & Dodge, 1990, for a review).
Non-social play

Non-social play is defined by Coplan (2000) as “the display of solitary activities and behaviors in the presence of other potential play partners” (p. 564). It is a term used often by Rubin, Coplan, and colleagues when studying socially withdrawn behavior (Rubin, 1982b; Coplan, Rubin, Fox, Calkins, & Stewart, 1994; Coplan & Rubin, 1998). Because much of their work involves behavioral observations during play sessions, versus parent and/or teacher ratings, it seems that the term “non-social play” is more specific to the research methods employed than the more generic term “social withdrawal.” Additionally, the term non-social play also tends to pertain to the population being studied, which often is preschool children.

Social Withdrawal

Social withdrawal relates to all of the above terms on some level, yet it is also slightly different as well. Rubin and Stewart (1996) have defined social withdrawal as “the consistent display of solitary behavior when encountering familiar and/or unfamiliar peers” (p. 280). First, social withdrawal refers to a behavior, versus a personality trait such as shyness. Many researchers, such as Rubin, Coplan, and colleagues (e.g. Rubin, 1982b; Coplan, Rubin, Fox, Calkins, & Stewart, 1994; Coplan & Rubin, 1998) tend to rely primarily on observable behavior when researching social withdrawal. Also in contrast to shyness, social withdrawal often is thought to apply to a more narrow segment of the population; only about 10 to 15 percent of the population can be described as socially withdrawn (Rubin, 1982a) versus up to 40% with shyness (Zimbardo, 1977). In contrast to inhibition, social withdrawal includes avoidant behaviors in both unfamiliar and familiar situations. Furthermore, there is evidence that some types of social withdrawal are unstable across development (Rubin & Mills, 1988), unlike inhibition, which is regarded as a stable individual characteristic. Because it is not necessarily
limited to play behavior, the term social withdrawal might be thought to encompass non-social play. In other words, socially withdrawn behavior can be observed in a variety of social settings, such as the lunchroom or on the schoolbus; it is not limited to the context of playtime. Coplan (2000) refers to non-social play as a behavioral manifestation of social withdrawal. Finally, the term social isolation refers to behavior by peers in reaction to a particular child, even though the term “social isolation” often is used interchangeably with “social withdrawal”. Sometimes researchers use social isolation to refer to children who are socially rejected by their peers, whereas other times the term refers to children who withdraw because of rebuffs from peers.

Social Withdrawal and Psychopathology

Early research reports on the clinical significance of social withdrawal indicated that such behavior was not necessarily predictive of psychopathology. A commonly held hypothesis by early sociological theorists was that isolation from intimate relationships in childhood would “lead to” serious mental illness, including schizophrenia (Kohn & Clausen, 1955, p. 265). However, Kohlberg, LaCrosse, and Ricks (1972) reviewed studies investigating the predictability of adult mental health from childhood behavior and found that social withdrawal did not predict later maladjustment. In addition, it was concluded that social withdrawal is not even a stable behavior but that it is associated with “specific developmental phases and crises” (Kohlberg, et al., 1972, p. 1255). Additionally, Robins (1966) found that certain behaviors associated with social withdrawal (e.g. difficulties with contemporaries, avoiding being with others, and shyness), as recorded in school records, clinic records, and police records, did not predict future antisocial behavior. Consistent with these studies, a review of peer relations and later personal adjustment by Parker and Asher (1987) indicated that shy or withdrawn behavior does not appear to be an indicator of risk for later adjustment difficulties.
However, more recent research has found some relation between social withdrawal and internalizing difficulties. For example, socially withdrawn children have been shown to display poorer self-concepts and to be more anxious and depressed than more sociable children (Strauss, Forehand, Smith, & Frame, 1986). In addition, a study by Bell-Dolan, Reaven, and Peterson (1993) revealed that high levels of both peer-rated and teacher-rated social withdrawal in fourth, fifth, and sixth graders correlated with high levels of self-reported depression. In another study, Rubin, Chen, McDougall, Bowker, and McKinnon (1995) found that, compared to childhood aggression and social competence, social withdrawal in seven-year-old children was a better predictor of loneliness, felt insecurity, and negative self-regard in adolescence.

The disagreement between earlier studies of social withdrawal and more recent studies has been attributed to several factors, including methodological flaws with the former such as use of only clinical samples, teacher ratings (which might not be as accurate as peer ratings), and externalizing symptoms as the only outcome measures (Rubin & Mills, 1991). However, Rubin and colleagues also have claimed that the ambiguous data regarding the association of social withdrawal to concurrent and long-term behavioral maladjustment is due to the fact that socially withdrawn children are actually a heterogeneous group (e.g. Rubin, Hymel & Mills, 1989; Rubin & Mills, 1991). They have proposed that the correlates of socially withdrawn behavior might become clearer if subtypes of the behavior are differentiated.

For example, consistent with this theory, one study has demonstrated that certain types of social withdrawal might predict internalizing difficulties, whereas others might not. Specifically, in a study of kindergarten and second grade children, Rubin, Hymel, and Mills (1989) found that high levels of observed passive solitary play (i.e. constructive or exploratory play) in kindergarten were related to low perceived self-competence and loneliness in fourth grade and
low perceived self-worth and depression in fifth grade. However, observed *active solitary* play (i.e. immature and rambunctious sensorimotor play) did not correlate with low perceptions of social competence, low perceived self-worth, loneliness, or depression in fourth or fifth grade. Conclusions drawn about the predictiveness of social withdrawal over time might vary depending on the subtype of social withdrawal that the child displays. Although there is much about social withdrawal in children that is not known, researchers are discovering that this behavior has been treated as a more simplified behavior than it warrants; researchers are realizing that social withdrawal has more complexity associated with it rather than just a mere lack of social interaction.

One possible cause of the frustration and ambiguous results of studies of social withdrawal is that researchers have attempted to link one behavioral manifestation with a large number of maladaptive outcomes—anything from loneliness and depression to aggression and schizophrenia. However, this has limited our understanding of the behavior by overly focusing on the behavior itself and failing to see how it fits into the context of a child’s development. In essence, social withdrawal encompasses one snapshot in time, but does not describe how a child came to be that way or what the behavior indicates as far as later adaptation is concerned. In the case of social withdrawal, perhaps using ideas advanced within the discipline of developmental psychopathology would best guide researchers to more meaningful information about the etiology and impact of social withdrawal within a child’s development. One definition of developmental psychopathology provided by Sroufe and Rutter (1984) is “the study of origins and course of individual patterns of behavioral maladaptation, whatever the transformations in behavioral manifestation, and however complex the developmental pattern may be” (p. 18, italics theirs). It defines itself in the focus not just on the overall development of the human, and not
just on the clinical maldadaptation of the human, but more directly on the process by which development becomes disordered. Furthermore, with the current trend in studying subtypes of this behavior, understanding different courses and patterns could become key in predicting if and when socially withdrawn children are likely to become disordered.

One idea stemming from the developmental psychopathology perspective that might aid in understanding the complex relationship between social withdrawal and psychopathology is the concept of equifinality, or that multiple and differing pathways might lead to similar manifest outcomes (Sroufe, 1997; Cicchetti & Rogosch, 1996). Even though many different kinds of children ultimately manifest the behavior of social withdrawal, the backgrounds of these children and the origins of the behavior might be quite different. For example, it has been hypothesized that passive-anxious social withdrawal might result from overdirective parenting (Mills & Rubin, 1998; Rubin, & Mills, 1991). However, aggression and peer rejection, which co-occur with actively-isolated withdrawal, might be associated with underactive parenting (Mills & Rubin, 1998). Thus, children from two different family backgrounds might at some point become socially withdrawn.

Several studies over the past decade have found evidence of subtypes of social withdrawal. The first subtype distinction to be made concerned whether these children were choosing to withdraw from the group themselves, or whether they were initially ostracized from the group and social withdrawal was a reactionary behavior (Rubin & Mills, 1988). A somewhat different perspective was taken by Asendorpf (1990), who conceptualized differences in socially withdrawn children based upon a combination of a social approach motive and a social avoidance motive. A third approach was to use a cluster analysis method to find clusters of socially withdrawn children with similar teacher-rated behavioral characteristics (Harrist, Zaia,
Bates, Dodge, & Pettit, 1997). All of these researchers have found heterogeneity among socially withdrawn children, including play behavior (Asendorpf, 1990), peer acceptance (Harrist, et al, 1997), social-cognitive processing (Harrist et al., 1997) and some clinical outcomes (Rubin & Mills, 1988).

Because research in the area of social withdrawal subtypes is relatively new, there does not appear to be a clear consensus as to how many subtypes there are and the way in which they are distinct from one another. However, from the handful of studies mentioned above, three distinct subtypes appear to consistently emerge. A subtype similar to what is referred to as passive-anxious has been found in 3 studies and has been consistently described as shy, timid, anxious, inhibited, non-aggressive, and highly internalizing (Rubin & Mills, 1988; Harrist et al., 1997; Asendorpf, 1990). These children are hypothesized to be conflicted between their desire to be with others and their desire to avoid social contact (Asendorpf, 1990). Another subtype similar to what is known as the actively-isolated subtype has been found in 3 studies and has been consistently described as an aggressive and immature child who withdraws as a consequence of peer rejection (Rubin & Mills, 1988; Harrist et al., 1997, Asendorpf, 1990). A third subtype, known as the unsociable subtype found by Harrist and colleagues (1997) and Asendorpf (1990), has been described as socially competent but with a preference for solitary play. The unsociable subtype appears to be the least understood subtype of the three described above.

**Passive-Anxious Withdrawal**

The term passive-anxious withdrawal has been used in at least three studies (Rubin & Mills, 1988; Harrist et al., 1997; Younger & Daniels, 1992) and a similar subtype has been described in several other studies (Asendorpf, 1990; Asendorpf, 1991; Coplan et al., 1994).
Children categorized as passive-anxious have been described as shy or timid and self-isolating. Peers have described them as those who would rather play alone and whose feelings get hurt easily (Rubin & Mills, 1988). Teachers have described them as anxious (Harrist et al., 1997). Asendorpf (1990) studied a similar subtype as part of an approach/avoidance conflict theory, though the label shy was used. The shy group was rated by teachers to be highly shy, low on aggression, and inhibited during social interaction. Coplan and colleagues, who have categorized low rates of interaction in terms of the quality of a child’s play, have likened one of their three categories of nonsocial play, the reticent group, to Asendorpf’s shy group (Asendorpf, 1991; Coplan et al., 1994). Reticent children have been shown to play in an unoccupied and onlooking manner, also described as “wait and hover” (Asendorpf, 1991). Finally, Younger and colleagues have developed a measure in which one factor of the two-factor structure of social withdrawal supported an inhibited/wary dimension (Younger, Schneider, Wadeson, Guirguis, & Bergeron, 2000). Children high on that dimension were rated by peers as those who cried easily, did not interact much with other children, and watched other children play (i.e. “wait and hover”).

Theories of shyness and inhibited social behavior stem anywhere from developmental neurology to parenting style, and many of them include both environmental and biological factors. One line of research has investigated physiological and neurological correlates of behavioral inhibition. These studies have linked behavioral inhibition to many factors, including high sympathetic reactivity (Kagan, Reznick, & Snidman, 1987; Marshall & Stevenson-Hinde; 1998), elevated norepinephrine levels (Kagan et al., 1987; Herbener, Kagan, & Cohen, 1989), activity within the hypothalamic-pituitary-adrenal axis (Kagan et al, 1987; Spangler & Schieche, 1998; Schmidt, Fox, Rubin, & Sternberg, 1997), brain asymmetries (Wittling, 1990; Wittling &
Pfluger, 1990), and eye color (Rosenberg & Kagan, 1987; Rosenberg & Kagan, 1989; Samuels & Block, 1995). It is generally accepted that inhibited children tend to have certain physiological reactions to novel situations, which Chrousos and Gold (1999) refer to as “The Inhibited Child ‘Syndrome’,” that differ from the reactions of non-inhibited children. Those authors have described this “syndrome” as a “clinical syndrome of stress system hyperactivity with increased fear sensation as a key manifestation.” (p. 199). They have hypothesized that this “syndrome” could be caused by either “genetic or early-life induced abnormalities in the interrelations of the stress system with the amygdala, hippocampus, and mesocorticolumbic system” (p. 199). In other words, prenatal and/or early life stress can predispose one to have a hyperactive stress response over the lifespan. This theory would fit with many of the behaviors that describe the passive-anxious child; a child with a hyperactive or hyper-reactive stress response might cry easily, be overly sensitive to the reactions of others, particularly to the unfamiliar, and be self-isolating to avoid overarousal of the stress response.

Asendorpf (1990) offers a motivational theory to explain a passive-anxious type of withdrawal. It has been hypothesized that the motivation to approach others in a social situation is independent of the motivation to avoid others. Thus, it is possible for a child to be in an “approach-avoidance conflict” (p. 254) such that there is a desire for social interaction as well as a desire to avoid the possible negative outcomes of social interaction, particularly those involving unfamiliar people. Therefore, shy children, according to Asendorpf, show more onlooking, or “wait and hover” behavior, and resolve the conflict through constructive parallel play (i.e. playing in a similar manner alongside peers, but with no interaction) (1990). Again, this type of play fits with the play exhibited by the reticent group in Coplan and colleagues’ studies of nonsocial play (Coplan, et al., 1994; Coplan & Rubin, 1998).
Support for a passive-anxious subtype of social withdrawal also can be found in the personality literature. Eysenck has outlined two types of shy behavior utilizing his five-factor theory of personality (1985). One type, named neurotic social shyness, is thought to describe someone who “may desire the company of others but is rather fearful of it at the same time” (p. 316). Neurotic social shyness is thought to involve features of both introversion (i.e. “preferring one’s own company,” p. 316) and neuroticism (i.e. “feelings of inadequacy and worry, emotional arousal,” p. 316). Neurotic social shyness as described by Eysenck appears to closely resemble the approach/avoidance conflict described by Asendorpf (1990) as well as the Inhibited/Wary dimension of social withdrawal described by Younger, Schneider, Wadeson, Guirguis, and Bergeron, (2000). Children high on that dimension were rated by peers as those who cried easily, did not interact much with other children, and watched other children play (i.e. “wait and hover”), similar to the shy children described in Asendorpf (1991) as well as the reticent children in Coplan et al. (1994). Furthermore, the neuroticism and emotional arousal aspect of neurotic shyness described by Eysenck appears to fit with the physiological reactivity of the “Inhibited Child Syndrome.”

Finally, Rubin and Mills have provided a developmental theory of social withdrawal that involves behavioral inhibition, attachment theory, and parenting style. Essentially, the theory proposed by Rubin and Mills (1991) is that behaviorally inhibited children, who display psychological and physiological reactions to novel stimuli and react with reticence and social withdrawal, form anxious-resistant attachments with their parents due to their hyperarousability and difficulty to soothe. The insecure maternal attachment leads the child to feel insecure about him/herself and relationships with others. Because the mother-child bond is the first relationship that a child experiences, an insecure relationship would serve as a poor model for future
relationships, and the child would be more cautious and anxious when interacting with others; thus, the insecure and inhibited child naturally withdraws from social situations and avoids social relationships, which might seem threatening. Anxious parents, in turn, try to control the child’s “unskilled” (i.e. avoidant) social behavior by becoming increasingly directive in the child’s play. This controlling parenting style increases the child’s insecurity, further exacerbating the socially withdrawn behavior. Hence, an inhibited, insecure toddler becomes a socially withdrawn child. Empirical support for the theory advanced by Rubin and Mills has been found through establishment of a correlation between passive withdrawal and both overdirective parenting (Mills & Rubin, 1998; Rubin, & Mills, 1991) and a resistant attachment style (Renken, Egeland, Marvinney, Manglesdorf, & Sroufe, 1995). Furthermore, there is evidence to suggest that physiologically reactive infants are more likely to have an anxious-resistant attachment to their mothers (Aaron, Calkins, & Fox, 1990).

To summarize, the passive-anxious socially withdrawn child may describe an inhibited child who is physiologically reactive and experiences physiological and emotional stress in social situations. Furthermore, whereas they desire social interaction, they are overly sensitive to the reactions of others and they feel insecure about their levels of social competence and social skill. As a result, they are easily upset by others and ambivalent about participation in social activities.

Given the theories outlined above, it is logical to propose that passive-anxious socially withdrawn children are more susceptible to internalizing disorders than average children. One study has indeed found that adjustment outcomes for passive-anxious socially withdrawn children include concurrent peer rejection, internalizing difficulties, and negative social self-perceptions (Rubin & Mills, 1988). It was also found that such behavior in kindergarten
predicted depression and loneliness in fifth grade (Rubin & Mills, 1988). Although there are limited studies of clinical outcomes of this subtype, there are several hypotheses as to how passive-anxious withdrawal might lead to internalizing problems. One hypothesis is that passive-withdrawn children move from average to rejected social status as they move from early to middle childhood (Harrist, et al., 1997), because such behavior becomes more noticeable and bothersome to peers. This contention has been supported by Younger and colleagues (Younger & Boyko, 1987; Younger, Gentile, & Burgess, 1993). This in turn might cause more social anxiety, leading to the development of clinical internalizing difficulties, such as anxiety or depressive symptoms. In fact, Boiven, Hymel, and Bukowski (1995) found that peer rejection mediates the relation between social withdrawal and internalizing problems. Chrousos and Gold have also predicted internalizing problems, including anxiety disorders, depression, substance abuse, eating disorders, and psychosomatic diseases, as part of their “inhibited child ‘syndrome’” theory (1999) – a syndrome which seems to fit with the passive-anxious subtype. They have predicted that clinical outcomes are dependent on the predisposition of genetic factors and environmental influences. Two important questions are whether the risk increases and/or the symptoms intensify in middle childhood and whether the risk is clinically significant or meaningful.

**Active-Isolate Withdrawal**

Although the term *active-isolate* withdrawal was chosen for this review, only one other study has used this term as well (Harrist et al., 1997). Other terms used to describe very similar subtypes include *active-immature* (Rubin & Mills, 1988), *solitary-active* (Coplan) and *avoidant* (Asendorpf, 1990). An additional name that would fit this subtype is *actively-isolated*, given that the key feature of this subtype is that these children tend to be rejected or isolated by other
children due to their aggressive and immature behavior. Teachers have rated children in this subtype as immature, lacking in restraint, and angry/defiant (Harrist, et al., 1997), whereas both teachers and parents have rated them as aggressive (Asendorpf, 1990). Peers have rated them as those who cannot get others to listen, who have trouble making friends, and who often are left out (Rubin & Mills, 1988). In terms of play quality, at least one study found these children to play in a nonconstructive solitary manner (Asendorpf, 1990), and other studies have documented sensorimotor (e.g. chewing on toys) and solitary dramatic (e.g. throwing blocks in the air, Rubin & Mills, 1988; Coplan, et al., 1994; Coplan & Rubin, 1998; Coplan, 2000) play. In several studies, children described in those terms have been found to be highly rejected by peers (Harrist, et al., 1997; Rubin & Mills, 1988; Coplan & Rubin, 1998; Coplan et al., 1994; Rubin, 1982b).

Rubin and Lollis (1988) have briefly outlined a possible pathway that might lead to the active-isolate subtype of withdrawal. They suggest that an interaction between a temperamentally anxious-avoidant baby, maternal hostility and rejection, and socioeconomic stress or disadvantage, would lead to a hostile and avoidant child who is aggressive with peers. Rubin and Lollis cite evidence that anxious-avoidant babies have been found to demonstrate hostile feelings toward caregivers (Main, 1981; Sroufe, 1983), and that these babies avoid others and act independently in novel settings (Ainsworth, Blehar, Waters, & Wall, 1978). Furthermore, they cite evidence that, in the toddler years, the hostile attitudes of these babies is carried over to peers (Pastor, 1981; Sroufe, 1983); by early to middle childhood, this aggressiveness is seen as aversive by peers (Coie & Kupersmidt, 1983). Thus, peers reject this type of child. Although Rubin and Lollis do not state as such, it might be that these children withdraw from peers even more once they have been initially shunned and isolated by the group.
Rubin and Lollis (1988) have further predicted that these aggressive-withdrawn children would have poor social problem-solving skills as well as externalizing psychopathological problems in later childhood and adolescence.

Overall, theories about the active-isolate subtype of social withdrawal point to children who are isolated by others rather than self-isolating, in contrast to the passive-anxious subtype. This appears to be the result of obvious social skill deficits related to aggressive tendencies and social immaturity. Also in contrast to passive-anxious withdrawal, active-isolate social withdrawal may be characterized by peer rejection beginning in early childhood rather than middle childhood (Harrist, et al., 1997).

It is logical to conclude from the presented theories of active-isolate socially withdrawn children that they are at risk for externalizing difficulties in terms of adjustment outcomes; however, there is some evidence that these children are at risk for internalizing problems as well. Although theories regarding the outcomes of active-isolate subtype of social withdrawal are limited, there is some information from the peer relations literature about psychological adjustment and clinical outcomes of withdrawn children who also are rejected. Specifically, studies that investigate subtypes of rejected children generally have found that rejected-withdrawn children can be characterized by higher levels of self-reported loneliness compared to average children (Parkhurst & Asher, 1992), higher levels of peer-rated unhappiness compared to average and non-withdrawn rejected children (Volling, Mackinnon-Lewis, Rabiner, & Baradaran, 1993), and more negative peer ratings in the area of social competence as well as non-social behaviors (e.g. athletic skills, attractiveness, and stylishness) than average children (Hymel, Bowker, & Woody, 1993). Furthermore, when compared to non-rejected withdrawn children, rejected-withdrawn children have more problems with peer group entry, responses to
failure situations, meeting teacher and peer group expectations for appropriate behavior, response to provocation, and reactive aggression (Volling, Mackinnon-Lewis, Rabiner, & Baradaran, 1993). This would indicate that rejected-withdrawn children have deficits in social skills and group social interaction.

In addition to rejected-withdrawn children, there is a subset of peer relations literature which has studied rejected-aggressive-withdrawn children which may also yield clues regarding active-isolate socially withdrawn children. Whereas rejected-withdrawn children have been rated negatively by peers in only some areas, rejected-withdrawn-aggressive children have been rated negatively by peers on nearly every behavior investigated, both social (social competence, leadership, cooperation, sense of humor) and non-social (athletics, academics, attractiveness, stylishness) (Hymel, Bowker, & Woody, 1993). Therefore, when rejected-withdrawn children also have aggressive behavioral tendencies, peers tend to view them more negatively than if they were withdrawn but non-aggressive. Furthermore, compared to the other groups, rejected-aggressive-withdrawn children have tended to overestimate their competencies in multiple domains compared to peer ratings of their competencies (Hymel, Bowker, & Woody, 1993).

Thus, rejected-aggressive-withdrawn children might be unable to understand why they are rejected by peers and have difficulty taking corrective actions.

**Unsociable Withdrawal**

Of the three subtypes, the unsociable subtype is the least studied; only two studies of subtypes of social withdrawal have discussed an unsociable subtype (Harrist et al., 1997; Asendorpf, 1990). These two studies have described unsociable children as socially competent but with a high motivation for solitary play (Harrist, et al. 1997); furthermore, these children tended not to deviate from average children on adjustment ratings from multiple sources
(parent ratings, teacher ratings, observations of dyadic play) and did not appear to be lacking in social knowledge (Asendorpf, 1990). This subtype also was more likely to be of neglected social status (i.e. ignored or overlooked by peers) compared to other withdrawn subtypes (Harrist, et al., 1997).

Coplan and colleagues have discussed a type of nonsocial play, called solitary-passive, which appears to be similar to other descriptions of unsociably withdrawn children (Coplan, Rubin, Fox, Calkins, & Stewart, 1994; Coplan & Rubin, 1998). Solitary-passive play, initially described by Rubin (1982b), refers to quiet, constructive activity while playing alone, such as coloring or completing a puzzle. Furthermore, Rubin found that such play was highly predictive of social and cognitive competence (1982b). Similarly, Asendorpf found that unsociable children who played in a constructive manner were emotionally stable and independent in their play (1990). Asendorpf fits unsociable children into the approach/avoidance model by arguing that these children have a low approach motive along with a low avoidance tendency - they prefer to play alone in a solitary-constructive manner (1990) but do not play alone due to a desire to avoid others.

From attachment theory, a model of a psychobiological ‘alonetime’ need in infants has been proposed by Buchholz and Helbraun (1999) that might extend to older children and seems to fit with the unsociable subtype. The authors of the theory have proposed that just as infants need to form psychological attachments to their caregivers, there is also a need for disengagement in order to promote self-regulation and independence. The authors cite attachment research (e.g. Belsky, Rovine, & Taylor, 1984; Isabella, Belsky, & von Eye, 1989) documenting negative outcomes of intrusive parenting, where mothers continue to stimulate and engage the infant despite the baby’s disengaging behaviors (Buchholz & Helbraun, 1999). They
have reported that insensitivity to infant cues for ‘alonetime’ fosters insecurity and insecure/avoidant attachment patterns. Furthermore, research has shown that infants of mothers who were overinvolved were more likely to have lower scores on cognitive measures (Belsky et al., 1984; Isabella & Belsky, 1991; Isabella et al., 1989; Malatesta-Magai, 1991; Roe, Roe, Drivas, & Bronstein, 1990). It is possible that observed social withdrawal in children might actually serve as an adaptive skill that promotes self-regulation of emotionality as well as independent learning. Such a theory would fit the description of a child with an unsociable social style.

Further, an unsociable subtype of social withdrawal can be found in the personality literature. Eysenck’s second type of shy behavior, called introverted social shyness, might also fit with the unsociably withdrawn child (1985). This person is described as one who “prefers to be alone even though he does have the ability to function effectively in company” (p. 317). Essentially, highly introverted people are those who might become overaroused by social stimulation and, thus, seek solitude in an effort to regulate arousal levels. Eysenck clarifies that those high on neuroticism as well as introversion are susceptible to high levels of stress (1985) in social situations, which might better fit with passive-anxious withdrawal. In addition to Eysenck, the second dimension of social withdrawal discussed by Younger and colleagues--called self-conscious shyness--seems to fit with the unsociable subtype of withdrawn behavior (Younger et al., 2000). Children high on this dimension were rated as those who get nervous when having to talk in class, who talk in a quiet voice, who don’t answer questions in class, and who blush and turn red easily (Younger et al., 2000). This pattern of behavior appears to describe those who do not seek to be the center of attention and who may become bashful and/or overaroused when forced to interact in certain social situations. Unsociable children appear
qualitatively different from those who desire increased social interaction but who also experience negative emotionality associated with it (i.e. passive-anxious).

A review of middle childhood personality research also supports a distinction between shyness and unsociability (Shiner, 1998). According to Shiner, sociability versus shyness can be distinguished by middle childhood, and possibly even by second grade. Evidence from Asendorpf and Meier (1993) has shown that unsociable and shy children differ in the manner in which they choose to spend free time. Unsociable children, although sociable during school hours, chose to spend more free time at home compared to sociable children; in contrast, shy children did not differ from nonshy children in choice of afterschool activity. Thus, personality theory and research appear to support the contention that shyness is a separate construct from sociability and lends support to both theoretical and empirical differences between the passive-anxious and unsociable subtypes of social withdrawal.

Studies on clinical and adjustment outcomes of unsociable children are nearly nonexistent. Of the studies that do exist, unsociable children, or those of similar qualities, were not found to be any different from average children on any measure (Asendorpf, 1990; Coplan & Rubin, 1998; Coplan et al., 1994). Another study concluded that these children had the least maladaptive behaviors compared to other withdrawn children (Harrist, et al., 1997). However, some theorists have suggested that children who are unsociable in early childhood are likely to change from neglected (i.e. ignored by peers) to rejected social status (i.e. disliked) as they move into middle childhood; furthermore, it has been contended that unsociable children are susceptible to internalizing difficulties as a result (Rubin et al., 1989; Rubin & Mills, 1988; Coplan, 2000). Studies by Younger and colleagues (Younger & Daniels, 1992; Younger, Gentile, & Burgess, 1993) support the idea that any type of withdrawn behavior is increasingly
viewed in a negative manner by peers beginning around fourth grade. Thus, more research is needed in this area to determine if unsociable children are more susceptible to negative peer attributions in middle childhood than other children, and, if so, how this might affect their clinical and personal adjustment.

Outcomes of Social Withdrawal

Current social withdrawal literature is moving toward the conclusion that subtypes of socially withdrawn children have different outcomes. However, more research is needed to fully understand what the specific outcomes are for each subtype. From what is known, it appears that passive-anxious children are at risk for internalizing difficulties which may become more severe in middle childhood as a function of increasing peer rejection. If actively-isolated children are the same population as rejected-withdrawn or rejected-aggressive-withdrawn children in the peer relations literature, we can hypothesize that this subtype of social withdrawal is at risk for both internalizing and externalizing difficulties. Finally, it is uncertain whether unsociable children are at risk for internalizing difficulties in middle childhood; although theorists hypothesize that they are (Rubin et al., 1989; Rubin & Mills, 1988; Coplan, 2000), limited data has indicated that they are not different from average children on adjustment measures.

Within the framework of developmental psychopathology, just as equifinality can help us to understand how different etiological pathways can lead children to the same behavior, multifinality can help us to understand how children with the same behavior can lead to different manifest outcomes (Sroufe, 1997; Cicchetti & Rogosch, 1996). Children demonstrating the same behavior of social withdrawal might or might not become disordered at a later date, or some might demonstrate internalizing difficulties whereas others might come to demonstrate externalizing difficulties. The concept of multifinality can help to clarify conflicting results.
found in the past by those studying the impact of socially withdrawn behavior on psychological adjustment. For example, although Rubin, Hymel, and Mills (1989) found one group of children that were socially withdrawn, some of the children had a tendency toward internalizing difficulties whereas others did not. The level and nature of psychological adjustment for these children depended on their subtype (Rubin, Hymel, & Mills, 1989). Therefore, a child who manifests the behavior of social withdrawal might or might not be at risk for maladaptation, depending on other factors that impact the child’s developmental growth.

Looking at social withdrawal through the lens of multifinality, it is also helpful to take into consideration the developmental age of children who are socially withdrawn; in other words, social withdrawal might have a differential impact on adjustment depending upon the age of the child. Social withdrawal might become more problematic in middle childhood, given that the primary social task of this age is learning to maneuver within and become accepted by the peer group (Rubin, Bukowski, & Parker, 1998). It is not until middle childhood that social withdrawal begins to be recognized as a distinct behavior pattern by peers. Specifically, Younger and colleagues reported that children not only are able to recall increasingly detailed descriptions of withdrawn behavior from first to fifth and seventh grades (Younger & Boyko, 1987), shy or timid behavior also becomes more noticeable and bothersome to peers starting around the fourth grade (Younger, Gentile, & Burgess, 1993). Recall that unsociable children have been characterized as socially skilled, but prefer to play alone and tend to be neglected by peers (Harrist et al., 1997; Asendorpf, 1990). Whereas an unsociable social style might be insignificant or even advantageous from an academic perspective (see Rubin, 1982b), it might become problematic when these children are developmentally supposed to be more interactive within the social group, which occurs in middle childhood (Rubin et al., 1998). When they do not
meet this expectation, feedback from others (peers, parents, teachers) might become more
critical; the child might in turn become more self-critical, which would place the child at risk for
internalizing difficulties. Several theorists (Rubin et al., 1989; Rubin & Mills, 1988; Coplan,
2000) have proposed that certain types of socially withdrawn children style might deviate from
normal pathways at this particular age.

Conclusion

From the information presented about social withdrawal and psychological adjustment
thus far, four broad conclusions are proposed. First, research and theory have demonstrated that
social withdrawal is indeed a complex behavior, and thus those who consistently demonstrate
such behavior should not be conceptualized as a homogenous set in terms of risk for
psychopathology. Consistent with the proposal forwarded by Rubin and Mills (Rubin, et al.,
1989), preliminary results indicate that differing subtypes of socially withdrawn behavior are
associated with differing types of adjustment difficulties. Furthermore, drawing on theory from
a variety of areas, including personality, motivation, and attachment, among others, different
subtypes of social withdrawal likely have differing etiologies.

This brings us to a second conclusion that developmental pathways should be considered
as an important factor in the development of various subtypes of social withdrawal. This might
appear to be an obvious statement, but it is often overlooked when conducting assessments and
making diagnoses. Gathering appropriate etiological information is vital in psychological
evaluation because such information is used in choosing and planning intervention strategies and
treatment options. Understanding the full profile of a child or “where the child is coming from”
can greatly enhance understanding of the behavior. Such information could also prove useful in
informing parents, teachers, and other professionals who regularly work with a particular child.
A third conclusion is that analysis of developmental pathways to social withdrawal can be used to predict levels and types of adjustment and possibly maladjustment. This information is useful not only for planning intervention strategies, but also for consultation purposes as well. For example, we might predict that active-isolate children have the poorest prognosis in terms of both internalizing and externalizing difficulties and may need intensive, wrap-around services (i.e. counseling, parent training, behavior management plans) in multiple settings. Passive-anxious children might be predicted to exhibit mostly internalizing problems and might benefit from relaxation techniques and other strategies to reduce anxiety in social settings. However, unsociable children might not need any type of intervention.

Finally, given differences in social developmental tasks as well as differences in peer perceptions of social withdrawal at different ages, the developmental age of the child should be considered when predicting levels of adjustment for socially withdrawn children. Specifically, internalizing difficulties might surface for unsociable children and might worsen for passive-anxious children around 4th grade, due to the increased social expectations put on children by peers at this time. Such information is useful for consultation with parents and teachers as well as for treatment planning. For example, unsociable children might need to know that their social style is acceptable by parents and teachers, yet also be gently prodded to be more sociable in certain settings with peers.

Longitudinal research is needed to fully understand the long-term prognosis associated with each subtype of social withdrawal. However, the four general conclusions stated above might serve as a useful guide for informing and planning for the mental health needs of socially withdrawn children until more is known.
References


Kohlberg, LaCrosse, and Ricks, 1972


CHAPTER 3

THE CLINICAL SIGNIFICANCE OF SOCIAL WITHDRAWAL:

ANALYSIS OF PEER-NOMINATED SUBTYPES¹

¹ Musgrove, K.T., & A.M. Lease. To be submitted to Journal of Clinical Child and Adolescent
Abstract

Distinguishing between subtypes of social withdrawal has been suggested to help clarify ambiguous results of studies of psychological and adjustment outcomes for socially withdrawn children. Further, the significance of social withdrawal to peers appears to change according to developmental age, with the behavior becoming more salient and bothersome in middle childhood. The purpose of this study was to explore what types of social withdrawal children in middle childhood could identify, and the psychological and adjustment outcomes associated with each subtype. A cluster analysis method was used to sort 515 4th-6th grade children into peer-nominated subtypes of social withdrawal. Teacher and self-reported psychological adjustment data was used to further describe the subtypes in terms of clinically significant impairment using nationally-normed measures. Results indicated that a cluster solution which includes five socially-withdrawn clusters was most stable and that two of those five clusters were at-risk for psychological maladjustment.

KEYWORDS: social withdrawal, subtypes, psychological adjustment
Introduction

The understanding of social withdrawal has gone through many changes over the past thirty years. Early research in this area concluded that social withdrawal was not predictive of psychopathology (Kohlberg, et al., 1972; Robins, 1966). In addition, a review by Parker and Asher (1987) indicated that social withdrawal was not a reliable indicator of child psychopathology. However, more recent research has linked social withdrawal to poor self-concept, anxiety, and depression (Strauss, Forehand, Smith, & Frame, 1986; Rubin, Chen, McDougall, Bowker, and McKinnon, 1995; Bell-Dolan, Reaven, and Peterson, 1993). Rubin and colleagues have claimed that the ambiguous data regarding the association of social withdrawal to concurrent and predictive behavioral maladjustment is due to the fact that socially withdrawn children are actually a heterogeneous group (e.g. Rubin, Hymel & Mills, 1989; Rubin & Mills, 1991). They have proposed that the correlates of socially withdrawn behavior might become clearer if subtypes of the behavior are differentiated.

In addition to the need to study social withdrawal as a group of heterogeneous behaviors, it also is important to consider that the meaning of socially withdrawn behavior appears to change with developmental age in the eyes of peers. Specifically, starting around the fourth grade, children not only notice socially withdrawn children more often (Younger & Boyko, 1987), the behavior also is interpreted as being more bothersome than in earlier grades (Younger, Gentile, and Burgess, 1993). The purpose of this study was two-fold. First, the subtypes of social withdrawal that peers in middle childhood could identify were of interest. Second, psychological adjustment outcomes of these subtypes also were of interest.
Theories About and Characteristics of Three Subtypes

The concept of subtypes of social withdrawal is relatively new, and as a result there is not yet a clear consensus as to how many subtypes there are or how they are characterized. Of the several studies that have investigated subtypes of social withdrawal, parent and teacher reports have been used (Rubin & Mills, 1988; Harrist et al., 1997; Asendorpf, 1990); however, we have little understanding of which subtypes peers are able to identify. Three distinct subtypes appear to consistently emerge from the several studies that do exist: active-isolated, passive-anxious, and unsociable. Specifically, one subtype consistently referred to as passive-anxious has been found in 3 studies and has been consistently described as shy, timid, anxious, inhibited, non-aggressive, and highly internalizing (Rubin & Mills, 1988; Harrist et al., 1997; Asendorpf, 1990). Another subtype frequently labeled as the actively-isolated subtype has been found in 3 studies and has been described as an aggressive and immature child who withdraws as a consequence of peer rejection (Rubin & Mills, 1988; Harrist et al., 1997, Asendorpf, 1990). A third subtype, known as the unsociable subtype found by Harrist and colleagues (1997) and Asendorpf (1990), has been described as socially competent but with a preference for solitary play. In addition to differing characteristics, these subtypes also appear to have differing etiological pathways as well as distinct psychological risk profiles.

Passive-Anxious

Children within the passive-anxious subtype generally have been characterized as shy or timid and self-isolating (Harrist, et al., 1997; Rubin & Mills, 1988). They have been described as those who would rather play alone and whose feelings get hurt easily by peers (Rubin & Mills, 1988) and as anxious by teachers (Harrist et al., 1997). Asendorpf (1990) identified a subtype labeled shy as part of an approach/avoidance conflict theory which is similar to the
passive-anxious subtype described in other studies. The shy group was rated by teachers to be highly shy, low on aggression, and inhibited during social interaction. In addition, Coplan and colleagues have likened one of their three types of nonsocial play, the reticent type, to behavior demonstrated by Asendorpf’s shy group (Asendorpf, 1991; Coplan et al., 1994). Reticent children tend to play in an unoccupied and onlooking manner, also sometimes described as “wait and hover” (Asendorpf, 1991). Finally, Younger and colleagues have described an inhibited/wary dimension as one factor of the two-factor social withdrawal structure (Younger, Schneider, Wadeson, Guirguis, & Bergeron, 2000). Children high on that dimension were rated by peers as those who cried easily, did not interact much with other children, and watched other children play (i.e. “wait and hover”), similar to the shy children described in Asendorpf (1991) as well as the reticent children in Coplan et al. (1994).

A triadic theory of social withdrawal which appears to apply to the passive-anxious subtype has been provided by Rubin and Mills (1991). Essentially, the theory proposes that behaviorally inhibited children, who display reticence in response to novel stimuli, react with distress and hyperarousability and are difficult to soothe by parents. In turn, they form anxious-resistant attachments with their parents. The insecure maternal attachment leads the child to feel insecure about him/herself and relationships with others. Thus, the insecure and inhibited child feels threatened and withdraws from social situations and avoids social relationships. Parents try to control the child’s “unskilled” (i.e. avoidant) social behavior by becoming increasingly directive in the child’s play, thereby increasing the child’s insecurity and further exacerbating the socially withdrawn behavior, according to the theory. Hence, an inhibited, insecure toddler becomes a socially withdrawn child. This theory seems to best fit with the anxious and insecure nature of the passive-anxious subtype. Similar to the approach-avoidance conflict proposed by
Asendorpf (1990), it would make sense that hypersensitive children who have insecure attachment histories would desire social contact, yet also be fearful of the possibility of rejection. Furthermore, from personality theory, Eysenck and Eysenck (1985) described a type of neurotic social shyness involving features of both introversion (i.e. “preferring one’s own company,” p. 316) and neuroticism (i.e. “feelings of inadequacy and worry, emotional arousal,” p. 316) which is also similar to the developmental theory proposed by Rubin and Mills (1991).

Empirical support for this triadic theory has been found in several studies. One study established a correlation between passive withdrawal and both overdirective parenting (Mills & Rubin, 1998; Rubin, & Mills, 1991) and a resistant attachment style (Renken, Egeland, Marvinney, Manglesdorf, & Sroufe, 1995). Furthermore, there is evidence to suggest that physiologically reactive infants are more likely to have an anxious-resistant attachment to their mothers (Aaron, Calkins, & Fox, 1990). In addition, there is a wealth of evidence linking behavioral inhibition with physiological reactivity (Kagan, Reznick, & Snidman, 1987; Marshall & Stevenson-Hinde; 1998; Herbener, Kagan, & Cohen, 1989; Spangler & Schieche, 1998; Schmidt, Fox, Rubin, & Sternberg, 1997).

For children who demonstrate passive-anxious withdrawal, one study demonstrated that adjustment outcomes include concurrent peer rejection, internalizing difficulties, and negative social self-perceptions (Rubin & Mills, 1988). The same study also found that passive-anxious behavior in kindergarten predicted depression and loneliness in fifth grade (Rubin & Mills, 1988). There are several hypotheses as to how passive-anxious withdrawal might lead to internalizing problems. One hypothesis is that passive-withdrawn children are likely to transition from average to rejected (i.e. disliked) social status as they move from early to middle childhood (Harrist, et al., 1997). Support for this hypothesis has been found through research
reported by Younger and colleagues (Younger & Boyko, 1987; Younger, Gentile, & Burgess, 1993) who have found that socially withdrawn behavior becomes more noticeable as well as more bothersome to peers in middle childhood. The transition from average or neglected social status to rejected status in turn might cause more social anxiety, leading to the development of clinical internalizing difficulties, such as anxiety or depressive symptoms. Boiven, Hymel, and Bukowski (1995) have demonstrated, in fact, that peer rejection mediates the relation between social withdrawal and internalizing problems. In addition, as part of their “inhibited child syndrome” theory, Chrousos and Gold (1999) have also predicted problems of an internalizing nature, including anxiety disorders, depression, substance abuse, eating disorders, and psychosomatic diseases. In summary, it appears that both theory and research evidence support that passive-anxious socially withdrawn children are more susceptible to internalizing types of difficulties, perhaps mediated by peer rejection.

**Active-isolated**

Children fitting the actively-isolated subtype of social withdrawal have been rated by peers as those who cannot get others to listen, who have trouble making friends, and who often are left out (Rubin & Mills, 1988). Teachers have rated them as immature, lacking in restraint, and angry/defiant (Harrist, et al., 1997), whereas both teachers and parents have rated them as aggressive (Asendorpf, 1990). In terms of play quality, at least one study has found these children to play in a nonconstructive solitary manner (Asendorpf, 1990), and other studies have documented sensorimotor (e.g. chewing on toys) and solitary dramatic (e.g. throwing blocks in the air, Rubin & Mills, 1988; Coplan, Rubin, Calkins, Fox, & Stewart., 1994; Coplan & Rubin, 1998; Coplan, 2000) play. These children have been found to be highly rejected by peers in several studies (Harrist, et al., 1997; Rubin & Mills, 1988; Coplan & Rubin, 1998; Coplan et al.,
One possible pathway which might lead a child to active-isolate withdrawal has been proposed by Rubin and Lollis (1988). They have suggested that an interaction between a temperamentally anxious-avoidant baby, maternal hostility and rejection, and socioeconomic stress or disadvantage, would lead to a hostile and avoidant child who is aggressive with peers. Support for this pathway has been found in several studies. For example, it has been documented that anxious-avoidant babies demonstrate hostile feelings toward caregivers (Main, 1981; Sroufe, 1983), and that these babies avoid others and act independently in novel settings (Ainsworth, Blehar, Waters, & Wall, 1978). Furthermore, it has been found that in the toddler years the hostile attitudes of these babies are carried over to peers (Pastor, 1981; Sroufe, 1983) and that by early to middle childhood, this aggressiveness is seen as aversive by peers (Coie & Kupersmidt, 1983), which could lead to peer rejection. Although Rubin and Lollis have not stated as such, it is possible that the withdrawn behavior would become more extreme once they have been initially shunned by the group. In terms of adjustment outcomes, it has been predicted that these aggressive-withdrawn children would exhibit poor social problem-solving skills as well as externalizing psychopathological problems in later childhood and adolescence (Rubin and Lollis, 1988).

From peer relations literature, we can gain some information about the psychological adjustment and clinical outcomes of rejected children who also are withdrawn (i.e. rejected-withdrawn children) who may be similar to or the same as active-isolate socially withdrawn children. Studies that investigate subtypes of rejected children generally find that rejected-withdrawn children can be characterized by higher levels of self-reported loneliness compared to
average children (Parkhurst & Asher, 1992), higher levels of peer-rated unhappiness compared to average and non-withdrawn rejected children (Volling, Mackinnon-Lewis, Rabiner, & Baradaran, 1993), and more negative peer ratings in the area of social competence as well as non-social behaviors (e.g. athletic skills, attractiveness, and stylishness) than average children (Hymel, Bowker, & Woody, 1993). Furthermore, when compared to non-rejected withdrawn children, rejected-withdrawn children had more problems with peer group entry, responses to failure situations, teacher and peer group expectations, response to provocation, and reactive aggression (Volling, Mackinnon-Lewis, Rabiner, & Baradaran, 1993). These findings appear to indicate that rejected-withdrawn children have deficits in social skills and group social interaction. It should be noted that rejected-withdrawn children may also be similar to passive-anxious socially withdrawn children, depending upon developmental age and given theories that passive-withdrawn children may begin to be rejected by peers in middle childhood (Harrist, et al., 1997).

There is a subset of peer relations literature which has studied rejected-aggressive-withdrawn children which may yield clues that more specifically pertain to active-isolate socially withdrawn children. Whereas rejected-withdrawn children, who are not aggressive, have been rated negatively by peers in only some areas, rejected-withdrawn-aggressive children have been rated negatively by peers in nearly every behavior investigated, both social (social competence, leadership, cooperation, sense of humor) and non-social (athletics, academics, attractiveness, stylishness) (Hymel, Bowker, & Woody, 1993). Therefore, when rejected-withdrawn children also have aggressive behavioral tendencies, peers tend to view them more negatively than if they were merely non-aggressive. Yet, compared to rejected-withdrawn and average children, rejected-aggressive-withdrawn children tend to overestimate their competencies in multiple
domains compared to peer ratings of their competencies (Hymel, Bowker, & Woody, 1993). Thus, rejected-aggressive-withdrawn children might be unable to understand why they are rejected by peers and have difficulty taking corrective actions. If they are indeed the same population as rejected-aggressive-withdrawn children, then it appears that active-isolate socially withdrawn children are at-risk for both internalizing and externalizing problems.

_Unsociable_

Only two studies have included discussion of an _unsociable_ subtype (Harrist et al., 1997; Asendorpf, 1990). These children have been described as socially competent but with a high motivation for solitary play (Harrist, et al. 1997). Furthermore, one study has shown these children tend not to differ from average children on adjustment ratings from multiple sources (i.e. parent ratings, teacher ratings, observations of dyadic play) and do not appear to be lacking in social knowledge (Asendorpf, 1990). Another study demonstrated that this subtype is more likely to be of neglected social status (i.e. ignored or overlooked by peers) compared to other subtypes (Harrist, et al., 1997).

Coplan and colleagues have discussed a type of nonsocial play, called _solitary-passive_, which appears to be similar to other descriptions of unsociably withdrawn children (Coplan et al, 1994; Coplan & Rubin, 1998). _Solitary-passive_ play, initially described by Rubin (1982b), refers to quiet, constructive activity while playing alone, such as coloring or completing a puzzle. Furthermore, Rubin found that such play was highly predictive of social and cognitive competence (1982b). Similarly, Asendorpf found that unsociable children who played in a constructive manner were emotionally stable and independent in their play (1990). Asendorpf fits unsociable children into an approach/avoidance model by arguing that these children have a
low approach motive along with a low avoidance tendency - they prefer to play alone in a solitary-constructive manner but do not play alone due to a desire to avoid others.

From personality theory, Eysenck and Eysenck (1985) describe a type of shy behavior, called *introverted social shyness*, which might fit with the unsociably withdrawn child. This person is described as one who “prefers to be alone even though he does have the ability to function effectively in company” (p. 317). Essentially, highly introverted people are those who might become overaroused by social stimulation and, thus, seek solitude in an effort to regulate arousal levels. One of two dimensions of social withdrawal discussed by Younger and colleagues—called *self-conscious shyness*—also seems to fit with the unsociable subtype of withdrawn behavior (Younger et al., 2000). Children high on this dimension were rated as those who get nervous when having to talk in class, who talk in a quiet voice, who don’t answer questions in class, and who blush and turn red easily (Younger et al., 2000). This pattern of behavior appears to describe those do not seek to be the center of attention and who become bashful and/or overaroused when forced to interact certain social situations. Thus, unsociable children appear qualitatively different from those who desire increased social interaction but who also experience negative emotionality (i.e. cries easily) associated with it (i.e. passive-anxious).

Studies on the clinical and adjustment outcomes of unsociable-withdrawn children are nearly nonexistent. Of the studies that do exist, unsociable children, or those of similar qualities, were not found to differ from average children on any measure (Asendorpf, 1990; Coplan & Rubin, 1998; Coplan et al., 1994). Another study concluded that these children had the least maladaptive behaviors compared to other withdrawn children (Harrist, et al., 1997). However, some theorists (Rubin et al., 1989; Rubin & Mills, 1988; Coplan, 2000) have suggested that, similar to the passive-anxious subtype, children who are unsociable in early childhood are likely
to change from neglected (i.e. ignored by peers) to rejected social status (i.e. disliked) as they move into middle childhood. Studies by Younger and colleagues (Younger & Daniels, 1992; Younger, Gentile, & Burgess, 1993) support the idea that any type of withdrawn behavior is increasingly viewed in a negative manner by peers beginning around fourth grade. As a result, unsociable children might be susceptible to internalizing difficulties (Rubin et al., 1989; Rubin & Mills, 1988; Coplan, 2000). Thus, more research is needed in this area to determine if unsociable children are more susceptible to negative peer attributions in middle childhood than other children, and, if so, how this might affect their clinical and personal adjustment.

In general, it appears that developmental age is an important factor when considering the psychological impact of socially withdrawn behavior, particularly for the unsociable subtype. Social withdrawal might become more problematic in middle childhood, given that the primary social task of this age is learning to maneuver within and become accepted by the peer group (Rubin, Bukowski, & Parker, 1998). This is in contrast to early childhood, when the primary social task is the coordination of dyadic play (Rubin et al., 1998) and low rates of interaction within the larger peer group might not be as noticeable or problematic. Therefore, in addition to the issue of whether withdrawn behavior might cause children to miss out on important group-based social learning opportunities, socially withdrawn children might also suffer from an increase in negative peer perceptions in middle childhood. This issue is especially key for unsociable children, who are thought to have normal social skills but prefer to play in solitude. Because unsociable children might place less importance on learning to navigate the peer system, peers might begin to judge them children unfavorably; in fact, peers might attribute any type of withdrawn behavior to a dysfunctional cause.
Current Study

In the current study, the subtypes of social withdrawal that children in middle childhood could identify were of interest. Peers were chosen as raters of social withdrawal for three reasons. First, previous research has indicated that peers might actually be better reporters of social withdrawal compared to parents and teachers (see Serbin, Lyons, Marchessault, Schwartzman, & Ledingham, 1987; Serbin, Marchessault, McAffer, Peters, and Schwartzman, 1993). Second, peer perceptions are important to development of self-concept, which intensifies in middle childhood. Third, we wanted to know if peers could separate the unsociable subtype from other subtypes of socially withdrawn children. If peers do recognize differing subtypes of socially withdrawn children, perhaps peers interact with them differently as well, which would add to our understanding of how similar manifest behaviors can lead to different adjustment outcomes.

Rather than seeing social withdrawal as a one-dimensional construct, we wanted to know whether fourth, fifth, and sixth graders would distinguish between differing types or profiles of socially withdrawn children. We chose a cluster analysis method in order to group subjects across multiple social withdrawal variables (i.e., actively-isolated, passive-anxious, unsociable). This way, authentic groups of socially withdrawn subtypes could be identified, versus artificially created groups who fall at the extreme end of only one dimension of withdrawal. This is in contrast to past studies which have measured socially withdrawn behavior as a continuous variable (Rubin, Hymel, & Mills, 1989; Rubin & Mills, 1988) or as a dichotomous variable (Younger et al., 2000). At least two subtypes were expected, the passive-anxious subtype and the active-isolate subtype, because they have been found most frequently in the literature.
The second area of interest was the social and emotional adjustment of the peer-identified subtypes. Adjustment was assessed using both teacher ratings and self-report. The authors wanted to know which, if any, peer-identified subtypes of social withdrawal are at risk for clinically significant maladjustment. Nationally-normed measures (i.e. Reynolds & Kamphaus, 1992) of adjustment were used to determine the clinical risk status of the peer-identified subtypes. In addition to extending our knowledge of the relation between social withdrawal and psychological adjustment, information regarding the external validity of the peer-identified subtypes also was of interest. Therefore, additional peer behavior nomination and social status information was collected for the purpose of external validity.

Method

Participants

Participants were 512 school children from twenty-six 4th through 6th grade classrooms located in three rural elementary schools in the Southeast region of the U.S. Participants ranged from 9 through 13 years of age. Across the entire population of those schools, 48% qualified for free lunch status and 9% qualified for reduced lunch status. According to school records, 56% of the sample was “White” students, 42% were “Black” students, and 2% were “Asian”, “Hispanic”, or “Mixed” students. Fifty-one percent of the participants were girls.

Procedure

Data was collected as part of a larger study on children’s peer relations. Students in participating classrooms were given consent forms to take home. These forms included a place for parents to choose whether they were giving consent or denying consent for their child to participate in the study. Both parental consent and child assent were required for participation in the study. The parental consent rate was 88%. This sample was divided into 26 classroom-based
peer groups. The measures that a participant completed were specific to his or her peer group (i.e. peers within the child’s classroom). Only the names of peer group members with parental consent to participate were included on the measures.

Questionnaires were group administered and instructions for each measure were read aloud in the classroom by one of the researchers while another researcher circulated among the students and helped with individual questions. During data collection, nonparticipating children were asked to read or draw quietly at their desks. For each classroom, data was collected over two days, one hour each day. Both participants and non-participants in each participating classroom were thanked for their time with a small gift for each session of data collection.

Measures

*Measurement of Social Withdrawal*

On each survey, participants were asked to nominate up to three children in the peer group for each of 3 socially withdrawn behavior-nomination items, created based on subtype descriptions found in a previous study (Harrist, et al, 1997). The items were introduced with the following description: “Some kids don’t seem to play with other children very much. They usually play by themselves. There could be many reasons for this. Think about the kids in your class who don’t play with other children”. The behavior-nomination items which pertained to social withdrawal followed: (a) “Some kids get along well with others, but prefer to play alone,” (unsociable) (b)“Some kids play by themselves because nobody wants to play with them,” (actively-isolated) (c) “Some kids act like they want to play with another group of kids, but they seem afraid or shy, and mostly watch,” (passive-anxious). Although measurement of a subtype of behavior based on one item might be considered unconventional, the reliability of the items is compensated for by the fact that nominations come from multiple peer raters (see Parkhurst and
Asher, 1992). Previous studies have demonstrated that behavioral nomination items yield scores with high split-half reliabilities (Perry, Kusel, and Perry, 1988) and high test-retest reliabilities (Coie and Dodge, 1983).

Socially withdrawn behavioral nominations for the entire participating sample (N = 512) were standardized by classroom to a mean of 0 and a standard deviation of 1. This was necessary because the number of nominations possible varied according to the number of peers in the classroom.

Teacher Ratings

The Behavior Assessment System for Children-Teacher Rating Scale (BASC-TRS; Reynolds & Kamphaus, 1992) was used as a measure of teacher-rated adjustment level. The BASC-TRS is a clinically-normed measure of behavior in the school setting that consists of a series of adaptive and clinical scales. General national norms, based on a large representative sample of U.S. children, were used for this study.

Scale scores and composite scores are reported on the BASC-TRS in the form of T-scores, with a mean of 50 and a standard deviation of 10. T-scores were developed using linear transformation – based solely on observed means and standard deviations -- to preserve the observed distribution of scores; in contrast, area transformations convert the shape of the distribution into some other distribution (e.g., normal; see Reynolds & Kamphaus, 1992). Consequently, T-score distributions for some BASC scales are skewed, reflecting the actual distribution of scores within their large, nationally representative norming sample. Thus, we reported both percentile ranks as well as mean T-scores.

Two of the three available forms of the BASC-TRS were used for this study: child (ages 6-11) and adolescent (ages 12-18). For each participant, teachers completed either the child form
(N=352) or the adolescent form (N=108), depending upon the age of the participant. For each item on the form, teachers were asked to rate an individual student’s behavior on a four-point scale of frequency, ranging from “never” to “almost always.” For example, the teacher would rate how frequently the student “Shows interest in others’ ideas” (Reynolds & Kamphaus, 1992). The child form of the BASC-TRS consists of 148 items, each of which contributes to one of fourteen scales: adaptability, aggression, anxiety, attention problems, atypicality, conduct problems, depression, hyperactivity, leadership, learning problems, social skills, somatization, study skills, and withdrawal. A description of each of these scales can be found in Table 1. The adolescent form consists of 138 items, each of which contributes to one of thirteen scales. Except for adaptability, the same scales on the child form appear on the adolescent form.

Independent reviews of the BASC-TRS have suggested that it demonstrates adequate to good evidence of reliability and validity (Adams & Drabman, 1994; Flanagan, 1995; Hoza, 1994; Kline, 1994; Sondoval & Echandia, 1994; Jones & Witt, 1994). Reliability evidence is also available from the BASC-TRS manual including internal consistency, test-retest reliability, and interrater reliability (see Reynolds & Kamphaus, 1992). Support for construct validity is also provided in the manual in the form of factor analytic results of the scales. Furthermore, the scales have been found to exhibit high correlations with similar scales from other teacher report measures (Kamphaus & Frick, 1996).

Self-Reported Adjustment

The BASC also provides a self report measure, the BASC- Self Report of Personality (BASC-SRP) (Reynolds & Kamphaus, 1992), which is similar to the BASC-TRS in that it is a clinically-normed measure that features both adaptive and clinical scales. Like the BASC-TRS, scores are in the form of T-Scores with a mean of 50 and a standard deviation of 20. Two forms
are available: the child form (ages 8-11) and the adolescent form (ages 12-18). Each participant completed either the child form (N=400) or the adolescent form (N=107), depending on his or her age. For each item on the form, participants are asked to respond either “True” or “False” as to whether a statement accurately describes them. For example, the participant would respond either true or false to the statement “I always do homework on time” (Reynolds & Kamphaus, 1992).

The child form includes 152 items, and has 12 scales. The following scales were used for this study: atypicality, locus of control, social stress, anxiety, depression, sense of inadequacy, interpersonal relations, self-esteem, and self-reliance. A description of each of these scales can be found in Table 2. The adolescent form includes 138 items and includes all twelve scales from the child form plus an additional two scales: sensation seeking and somatization. However, due to the smaller sample size of participating adolescents (n=107), those scales were not used within this study.

Reliability evidence is available from the BASC-SRP manual including internal consistency, test-retest reliability, and interrater reliability (see Reynolds & Kamphaus, 1992). Support for construct validity is also provided in the manual in the form of factor analytic results of the scales. Furthermore, the scales have been found to exhibit high correlations with similar scales from other teacher report measures (Kamphaus & Frick, 1996).

**Social Self-Concept and Self-Esteem**

Participants also completed items from the Self-Esteem Questionnaire, which was designed to measure young adolescents’ global feelings of self-worth as well as self-worth in relation to a variety of contexts (grades 5 through 8; DuBois, Felner, Brand, Phillips, & Lease, 1996). For this investigation, only two subscales were used: social self-esteem (e.g. “I am as
popular with kids my own age as I want to be”), and social self-concept (e.g. “I get along well with most kids”). For each item, participants were asked to indicate how well the statement described them on a scale of 1 to 4 (i.e. 1 = strongly disagree to 4 = strongly agree). Each of the subscales has adequate internal consistency (coefficient alphas ranged from .81 to .91; DuBois et al., 1996). Further evidence for the validity of this measure is presented in DuBois et al. (1996). Scores for each scale were standardized by the entire sample (N= 512), instead of within classroom, because self-ratings were not dependent upon classroom size; scores were converted to z-scores for comparison to the other self-report measures.

Loneliness and Social Dissatisfaction

Participants also completed a twenty-four-item scale of loneliness and social dissatisfaction with peer relationships at school (Asher & Wheeler, 1985). Examples of items include “It’s hard for me to make friends at school,” “I’m lonely at school,” and “It’s hard to get kids at school to like me.” Eight of these twenty-four items are “filler” items regarding the participants’ hobbies and subjects at school, such as “I like to paint or draw.” For each item, participants were asked to respond how well each statement described them on a scale of 1 to 5 (1 = not at all to 5 = very much). Internal consistency indicators of this scale have demonstrated very good reliability (Cronbach’s alpha = .90; Asher & Wheeler, 1985). Other psychometric qualities of this scale are well-documented (Asher, Hymel, & Renshaw, 1984; Asher & Wheeler, 1985). Again, scores were standardized by the entire sample (N = 512 ) instead of within class.

Peer-rated Adjustment

Participants also completed a series of behavior nomination items, derived from previous research (e.g. Adler & Adler, 1998; Crick & Grotpeter, 1995; Masten, Morrison, & Pellegrini, 1985; Rodkin, Farmer, Pearl, & Van Acker, 2000; Wright, Giammarino, & Parad, 1986). For
each item description, the participants were asked to nominate up to three people in their class that fit each description. Nominations for each participant for each item were summed and standardized, within classroom, to a mean of 0 and a standard deviation of 1 because the number of nominations possible varied depending on the number of peers in the classroom. Subscales of behavior, created by combining related behavior items, consisted of the following: prosocial, odd, inattentive, sad/worry, disruptive, physical aggression, leadership, and self-confidence. Items pertaining to each subscale, as well as alpha coefficients for each subscale made up of more than one item, are listed in Table 3.

To assess social status, participants were asked to nominate up to three members of their class that they “like to play with the most” (like-most) and three that they “like to play with the least” (like-least) at school (Coie, Dodge, & Coppotelli, 1982). Numbers of like-most and like-least nominations each participant received were summed and standardized to a mean of 0 and a standard deviation of 1 within each classroom and gender because children tend to nominate same-sex peers for liked-most and liked-least items (Coie et al., 1982). Next, children were assigned to social status groups (i.e., popular, average, rejected, neglected, and controversial) based on the Coie and Dodge (1983) method. Children were classified as popular if they had a social preference score greater than 1, a like-most score greater than 0, and a like-least score less than 0; rejected if they had a social preference score less than -1, a like-most score less than 0, and a like-least score greater than 0; neglected if they had a social impact score less than -1, and like-most and like-least scores less than 0; and controversial if they had a social impact score greater than 1, and like-most and like-least scores greater than 0. All remaining children were classified as average.
Results

Cluster Analysis

The first goal of this study was to find out which subtypes of social withdrawal peers in middle childhood could recognize. This was accomplished by using a cluster analysis method to group the sample of socially withdrawn children by their frequency of nominations for the three withdrawal items. All 512 children were included in the cluster analysis, with the understanding that one or two clusters would include non-withdrawn children. The clustering variables consisted of the standardized number of nominations for the three withdrawn items. For the entire sample, correlations between the withdrawal items ranged from .52 (between the unsociable item and the actively-isolated item) to .61 (between the passive-anxious item and the unsociable item).

The clustering method used was based upon recommendations by Bridger (1998) and Huberty, DiStefano, and Kamphaus (1997). This method is a two-step process that used both a hierarchical agglomerative procedure (i.e. Ward) and an iterative partitioning procedure (i.e. K-means), using Euclidean distance as an index of similarity. The Ward method is a technique that begins with each case as a separate cluster and then groups similar cases together. The advantage to this technique is that it minimizes within-cluster variance. However, once a case is classified into a cluster, it cannot move out of that cluster, even if it no longer resembles the group as the process continues. Thus, the Ward method was used to identify the initial cluster solution.

The second step in the clustering process used the K-means method, an iterative partitioning technique that starts with the cluster centroids produced by the Ward method in the first step. The K-means method requires pre-determined cluster centroids, like those produced
with the Ward procedure, and then assigns each case to the cluster with the nearest centroid. After all cases have been assigned to a cluster, new centroids are computed. This process continues until no cases change clusters. The advantage of this procedure is that, because cases are allowed to change clusters, this method should be able to overcome poor initial partitioning (Huberty, DisStefano, & Kamphaus, 1997).

Deciding on the appropriate number of clusters is a subjective decision that is made by the researchers that is guided both by the extant theoretical literature as well as empirical issues. The cubic clustering criterion (CCC) statistic may be used in judging the final number of clusters; generally, a statistic above “1” is considered good, and the higher the statistic, the better the solution (SAS Manual, 1996). A plot of the CCC statistic for 2 through 10 cluster solutions indicated that the two and three cluster solutions had the highest statistic. However, the CCC does not always indicate the best solution, and interpretation of the data should be used when deciding on a final number of clusters (SAS Manual, 1996). In this case, based upon the N of the clustering sample (512), number of variables (3), and expected number of clusters (i.e., 4- at least one non-withdrawn plus two or three withdrawn clusters), the range of clusters considered was four to seven. Tables 4, 5, 6, and 7 list the cluster solutions for four, five, six, and seven cluster solutions, respectively, along with the corresponding CCC statistic. Based on these results, the seven-cluster solution was discarded due to the small size of one of the clusters. The four-cluster solution was discarded because it was felt that it did not accurately delineate all of the clusters.

In order to examine the internal validity of the clusters, a split-half clustering procedure was performed on both the five- and six- cluster solutions. The sample was randomly split into two halves, and both the Ward and K-means procedure was performed on each half. Three trials of this procedure were performed on the five- and six-cluster solutions. The frequency of each
cluster was calculated for each half of three trials, which equals to a highest possible total frequency of six for a particular cluster (i.e. it is found in both halves of the sample over three trials). Tallies of the found clusters for the five- and six-cluster solutions are listed in Table 8.

The six cluster solution yielded the most consistent occurrence of clusters; therefore, it was judged to be the more stable and favorable of the two solutions. Clusters within each solution were named based upon the corresponding withdrawal items that had the highest z-scores (i.e. a high frequency of nominations for a particular item or items). Four clusters of the six-cluster solution were found in the original whole sample solution as well as each trial of the split-half clustering procedure. Those clusters were non-withdrawn, active-isolate, overall-withdrawn, and passive-anxious/unsociable. The passive-anxious cluster was found in the original whole sample solution as well as four out of six of the split-half clustering solutions. Although the unsociable cluster was found in the whole sample solution, it was only found in three out of six of the split-half clustering solutions. However, an average cluster was found in four out of six of the split-half clustering solutions, but not the whole sample clustering solution. One way to interpret this result is that the average cluster and the unsociable cluster are quite similar (i.e. tend to be the same participants). Indeed, 45 out of 65 members of the unsociable cluster in the six-cluster solution were members of the average cluster in the 5-cluster solution.

Peer Ratings

The purpose of collecting additional peer-nominated behavioral information as well as sociometric status data was to examine external validity of the five socially withdrawn clusters from the six-cluster solution using an additional source. Means and standard deviations for the peer-nominated behaviors are listed in Table 9 in the form of z-scores; a Duncan method, which controls Type I error rate for pairwise comparisons, was used to compare the five socially
withdrawn clusters to each other. In addition, planned pairwise comparisons were conducted between each socially withdrawn cluster and the non-withdrawn cluster. It should be noted that power is more limited in these comparisons for some clusters than others due to smaller group size. Sociometric status information is listed in Table 10.

With the exception that the passive-anxious cluster was not seen by peers as those who worry a lot, peer-nomination data appears to match expected characteristics for each socially withdrawn cluster. Peers nominated children in the active-isolate cluster as being both aggressive and disruptive as well as lacking in prosocial behavior and self-confidence. The overall-withdrawn cluster was seen by peers as children who worry a lot and lack leadership qualities, and both the active-isolate and the overall-withdrawn clusters were nominated as those who are odd and inattentive. Only one other socially withdrawn cluster demonstrated peer-nominated difficulties; children in the unsociable/passive-anxious cluster were seen by peers as those who worry a lot. Analyses of variance indicated overall statistical differences between the withdrawn cluster means for all of the peer-nominated behavior scales.

In comparison to the non-withdrawn cluster, peers rated all socially withdrawn clusters except the unsociable cluster as those who worry more and all but the unsociable/passive-anxious cluster as those who lack leadership qualities. Whereas the active-isolate group was rated as being more physically aggressive and disruptive compared to non-withdrawn children, unsociable/passive-anxious children were seen as less physically aggressive and less disruptive. Both the passive-anxious cluster and the active-isolate cluster were seen as those who have less self-confidence compared with non-withdrawn children.

A chi-square analysis indicated that there was an uneven distribution of clustered children within the five categories of sociometric status ($\chi^2 (20, 492) = 150.3, p<.0001$). Chi-square
analyses conducted for each level of sociometric status indicated an uneven distribution of children classified as rejected within each of the five socially withdrawn clusters. Social status results revealed that the majority of children in both the active-isolate (76%) and the overall withdrawn clusters (77%) were rejected by peers, which is consistent with the wording one of the withdrawal items used for the cluster analysis procedure. Most children within the passive-anxious, unsociable/passive-anxious, and unsociable clusters were classified as either neglected or average status.

**Psychological Adjustment**

The second purpose of this study was to examine the clinical implications of membership in each of the peer-identified socially withdrawn clusters. The reason for this was two-fold: (a) to further examine the external validity of the six-cluster solution, and (b) to further understand the clinical significance of social withdrawal itself. Teacher and self-report data were examined only for the socially withdrawn clusters. Whereas Table 11 contains the mean T-scores and percentiles for the five socially-withdrawn clusters on the BASC-TRS scales, Table 12 shows the percentage of each cluster that fell within the at-risk range (percentiles ≥ 90 for clinical scales, ≤ 10 for adaptive scales) for each BASC-TRS scale. Likewise, Table 13 contains the T-score and percentile data for the five socially withdrawn clusters on the BASC-SRP scales, and Table 14 shows the percentage of each cluster that fell within the at-risk range for each BASC-SRP scale. Table 15 contains additional self-report data for each of the socially withdrawn clusters using social self-concept, social self-esteem, and loneliness and social dissatisfaction measures. For Tables 11, 13, and 15, an analysis of variance was conducted for each scale, indicating whether there were overall statistical differences between the withdrawn cluster means; a Duncan method, which controls Type I error rate for pairwise comparisons, was used to indicate which
cluster means were significantly different. In addition, planned pairwise comparisons between
the withdrawn clusters and the non-withdrawn cluster were also conducted. For Tables 12 and
14, a chi-square analysis was conducted for each scale, indicating whether there was an uneven
distribution of “at-risk” children among the clusters.

Teacher-Rated Adjustment

Both the active-isolate and the overall withdrawn clusters demonstrated above average T-
scores (i.e. one half of one standard deviation or 10% above the national mean) for many of the
scales on the BASC-TRS (see Table 11). Specifically, both clusters were rated as demonstrating
elevations for school problems (i.e. attention problems, learning problems) as well as atypicality.
However, the active-isolate cluster, but not the overall-withdrawn cluster, also was rated as
demonstrating elevations on externalizing scales (i.e. hyperactivity, aggression, conduct
problems) as well as ratings that were significantly higher than the non-withdrawn cluster.
Conversely, the overall-withdrawn cluster, but not the active-isolate cluster, was rated as
demonstrating elevations for internalizing scales (i.e. anxiety, depression), although the active-
isolate cluster, as well as the overall-withdrawn cluster, had ratings that were significantly higher
than the non-withdrawn cluster in the area of depression. In addition, both the active-isolate
cluster and the unsociable/passive-anxious cluster were rated as demonstrating problems with
somatization, though not significantly different from the non-withdrawn cluster. These results
are consistent with peer data reported above. Only the overall withdrawn cluster was rated as
demonstrating an elevation in the area of withdrawn behavior, although three clusters had
significantly higher ratings compared to the non-withdrawn cluster.

For the adaptive scales, both the overall-withdrawn cluster as well as the active-isolate
clusters demonstrated deficits in leadership, study skills, and adaptability; the active-isolate
cluster also demonstrated a deficit in social skills. With the exception of a deficit in leadership for the passive-anxious cluster, none of the other clusters demonstrated extreme mean scores on the BASC-TRS adaptive scales. Again, these results are consistent with peer data reported above. The active-isolate cluster also demonstrated adaptive skills that were significantly lower compared to the non-withdrawn cluster in all areas; the overall-withdrawn cluster did so only in the area of leadership. In an overall comparison of the socially withdrawn clusters to one another, analyses of variance indicated overall statistical differences for all teacher-rated scales except for anxiety, somatization, and leadership.

A chi-square analysis indicated that several of the clusters were disproportionately distributed in terms of overall percentage of each cluster that fell within the at-risk range at the p< .01 level; those scales were hyperactive, conduct problems, depression, atypicality, withdrawn, social skills, study skills, and adaptation. Children falling within the active-isolate and overall withdrawn clusters were overrepresented (i.e. > 10% higher than total percentage of sample) as at-risk on many of the clinical scales as well as on many of the adaptive scales. Specifically, both clusters were overrepresented as at-risk on the depression scale, the learning problems scale, and the atypicality scale. The active-isolate cluster also was overrepresented on the hyperactive, aggression, and conduct problems scales. The overall withdrawn cluster was also overrepresented as at-risk in the areas of anxiety and withdrawn behavior. In addition to the active-isolate and overall withdrawn clusters, the unsociable/passive-anxious cluster was overrepresented as at risk on one clinical scale (somatization). For the adaptive scales, both the active-isolate and overall-withdrawn clusters were overrepresented as at-risk in the area of leadership and study skills. The active-isolate cluster also was overrepresented as at-risk on the social skills scale and the adaptability scale.
Self-Report

For the BASC-SRP, the overall-withdrawn and the active-isolate clusters were again the most interesting and the only ones to demonstrate above average T-scores on the clinical scales and below average T-scores for the adaptive scales. In fact, the active-isolate cluster reported elevated mean T-scores for all of the clinical scales and depressed mean T-scores for all of the adaptive scales. The overall withdrawn cluster reported elevated mean T-scores in the areas of anxiety, depression, sense of inadequacy, and social stress and a depressed mean T-score in the area of interpersonal relations. However, all of the socially withdrawn clusters self-reported significantly different results compared to the non-withdrawn cluster for select scales. Specifically, the passive-anxious cluster reported more anxiety, more problems with a sense of inadequacy, and poorer interpersonal relations. The unsociable/passive-anxious cluster reported more symptoms of anxiety, depression, and social stress as well as poorer self-reliance compared to non-withdrawn children. Finally, the unsociable cluster reported more symptoms of depression, more social stress, more problems with interpersonal relations, and poorer self-esteem compared with non-withdrawn children. Analyses of variance indicated overall differences in means for the socially withdrawn clusters on the following scales: depression, locus of control, sense of inadequacy, social stress, and interpersonal relations.

A chi-square analysis indicated that the clusters were disproportionately distributed on four of the BASC-SRP clinical scales (depression, locus of control, sense of inadequacy, and social stress) and one of the BASC-SRP adaptive scales (interpersonal relations) in terms of percentage of each cluster within the clinical at-risk range. Both the active-isolate and the overall withdrawn clusters were overrepresented as at-risk in the areas of depression and social stress for the clinical scales and in the area of interpersonal relations for the adaptive scales. The
active-isolate cluster was also overrepresented as at-risk in the area of locus of control and sense of inadequacy on the clinical scales.

Analyses of variance conducted on the three non-nationally-normed self-report measures indicated that the five socially withdrawn clusters had statistically different means in the areas of social self-confidence, social self-esteem, and loneliness and social dissatisfaction. Specifically, children in both the overall-withdrawn cluster and the active-isolate cluster reported low levels of self-confidence and self-esteem and high levels of loneliness and social dissatisfaction in relation to the other three clusters as well as the rest of the sample. All five socially withdrawn clusters reported poorer social self-concept, poorer social self-esteem, and more loneliness and social dissatisfaction compared to non-withdrawn children.

Discussion

The first goal of this paper was to identify which subtypes of social withdrawal that peers could recognize. After examining several options, the six-cluster solution was judged to be the most stable and therefore most favorable solution. This solution featured five socially withdrawn clusters as well as a non-withdrawn cluster. The three expected subtypes previously found in the literature, a passive-anxious subtype, an active-isolate subtype, and an unsociable subtype, were found in the six-cluster solution. Unexpectedly, two other socially withdrawn subtypes, a combined unsociable/passive-anxious subtype and an overall-withdrawn subtype, also were found. Overall, it appears that the three subtypes as discussed in the literature are not mutually exclusive in the eyes of peers. According to peers in middle childhood, whereas some children fit only the passive-anxious, unsociable, or active-isolate subtype, other children might fit the description of two or more of the theoretical subtypes. This result was unexpected as the three social withdrawal items were intended to characterize three separate and distinct kinds of social
withdrawal. It is possible that children who are perceived by peers as highly deviant from other children are those that are typically nominated for more than one of the social withdrawal items. In other words, children may not specifically know why a socially withdrawn child is different, just that they are and thus they frequently nominate such children for any item that is perceived as negative. This theory is supported by negative peer ratings for the overall-withdraw subtype as reported below.

Teacher-, peer-, and self-report data supported differentiation of the clusters via analyses of variance and chi-square analyses. For the peer-report measures, clusters demonstrated overall differences in means for all of the peer-nominated behaviors as well as in overall social status classification. In addition, clusters demonstrated overall differences in means for eleven out of fourteen scales for the teacher report measure and eight out of twelve scales (normed and non-normed measures combined) for the self-report measures. Overall, past research and theory as well as results from the present study have demonstrated that social withdrawal is indeed a complex behavior, and thus those who consistently demonstrate such behavior should not be conceptualized as a homogenous set in terms of risk for psychopathology.

Although differences between the non-withdrawn cluster and select socially withdrawn clusters were evident from all three reporters, it appeared that the self-report scales demonstrated the most discrimination between the socially withdrawn clusters and the non-withdrawn cluster. All of the socially withdrawn clusters reported lower social self-concept, lower social self-esteem and more loneliness and social dissatisfaction compared to the non-withdrawn cluster. In addition, four out of five of the socially withdrawn clusters reported significantly more problems with interpersonal relations, depression, anxiety, and social stress compared to the non-withdrawn cluster. Peer reports appeared to demonstrate moderate discrimination, as four out of
five of the socially withdrawn clusters were seen by peers as demonstrating significantly lower leadership skills and more worrying behavior compared to the non-withdrawn cluster. Teacher reports tended to mostly discriminate the overall-withdrawn cluster and the active-isolate cluster from the non-withdrawn cluster, although teachers did rate the unsociable/passive-anxious cluster as being less hyperactive, less aggressive, and more withdrawn than the non-withdrawn cluster.

In terms of above and below average BASC scores, teacher and self-report data partially agreed with peer data about which children were socially withdrawn. On one hand, the cluster that received the highest frequency of social withdrawal nominations, the overall withdrawn cluster (as evident by the highest z-scores for the three clustering items), also received above average ratings for withdrawn behavior and, along with the active-isolate cluster and the passive-anxious cluster, received below average ratings for leadership skills on the teacher-rated BASC-TRS. Additionally, three out of five of the socially withdrawn clusters were significantly different from the non-withdrawn cluster in terms of teacher-rated withdrawal. Furthermore, both the overall withdrawn cluster and the active-isolate cluster (which had the second highest frequency of social withdrawal nominations) self-reported below average interpersonal skills on the BASC-SRP and four our of five of the socially withdrawn clusters self-reported more problems with interpersonal skills compared to the non-withdrawn cluster.

However, four of the socially withdrawn clusters did not receive elevated teacher ratings for withdrawal and two did not receive below average ratings for leadership; furthermore, three of the socially withdrawn clusters did not report significant problems with interpersonal relations. It is possible that teachers tend to recognize the more extreme or intense forms of social withdrawal, whereas peers are more sensitive to moderate and mild forms of the behavior.
This interpretation may also fit with the self-report data, as the subtypes which tended to receive comparatively fewer nominations for withdrawal (the passive-anxious, unsociable/passive-anxious, and unsociable subtypes) might feel competent in their interpersonal relations skills, even though they may have less frequent interactions compared with peers. In other words, peers may be the most sensitive of the three reporters to socially withdrawn behavior; the data from peer, teacher, and self-report appears to converge as the number of peer nominations increases.

The second goal of this study was to examine the levels of psychological adjustment for each of the peer-identified subtypes of social withdrawal. Two subtypes in particular appeared to demonstrate at-risk levels of maladjustment—the active-isolate subtype and the overall-withdrawn subtype. In terms of teacher ratings, the active-isolate subtype appeared to demonstrate difficulties with externalizing problems, school-related problems and low adaptive skills. These results are consistent with theory as well as previous research findings (Rubin, Hymel, and Mills, 1988) in which active-isolate socially withdrawn children were found to demonstrate problems with aggression and other externalizing difficulties.

On the other hand, self-report results indicated that the active-isolate subtype reported difficulties with anxiety, depression, sense of inadequacy, and interpersonal relations. These results are inconsistent with teacher-report and peer-reports from the current study, as well as findings in previous studies (Rubin, Hymel, & Mills, 1989); teachers in the present study as well as in past studies have not reported significant internalizing difficulties for this subtype (although they did report more depression symptoms compared to non-withdrawn children), adding further evidence to previous statements by Rubin and Mills (1991) that teachers are not optimal reporters of internalizing difficulties. It appears that this might be especially true for the active-
isolate subtype of social withdrawal. Approximately half of children in the active-isolate subtype reported at-risk levels of depression.

Peers described children in the active-isolate subtype as aggressive and generally rejected these children. Peers also described these children as odd, disruptive, inattentive and lacking in prosocial skills and self-confidence. These results are consistent with descriptions of rejected-aggressive-withdrawn children found in the peer relations literature, where peers have rated them negatively in multiple areas (Hymel, Bowker, & Woody, 1993). Additionally, the active-isolate subtype reported problems with poor locus of control and a sense of inadequacy. This fits well with research stating that rejected-aggressive-withdrawn children, who might be the same population as active-isolate children, tend to overestimate their competencies (Hymel, Bowker, & Woody, 1993). If they are unable to recognize why they are having social difficulties, then they are likely to feel that they cannot control events in their world (i.e. poor locus of control) and feel ineffective in dealing with social situations (i.e. high sense of inadequacy). This information points to intense social skills intervention, including skills in recognizing appropriate versus inappropriate social behavior, as a possible treatment plan for the active-isolate subtype of social withdrawal.

The other cluster that demonstrated at-risk levels of psychological adjustment, the overall-withdrawn subtype, was characterized by teacher-, peer- and self-report as demonstrating primarily internalizing difficulties. These results suggest that this group of children may more closely resemble the passive-anxious subtype described in other studies of social withdrawal, which was thought to demonstrate internalizing problems, compared to the passive-anxious subtype as found in the current study, which did not demonstrate any adjustment problems according to teachers. Peers also viewed the overall-withdrawn subtype as those who are odd,
worry a lot, are inattentive, and lack leadership qualities, and teachers rated them as
demonstrating school-related problems and low adaptive skills. From the perspective of the peer
relations literature, the overall-withdrawn subtype might be the same population as the rejected-
withdrawn subtype, just as the active-isolate subtype might be the same population as the
rejected-aggressive-withdrawn subtype. In addition to the fact that both the overall-withdrawn
subtype and the rejected-withdrawn subtype tend to be rejected by peers, both groups have been
shown to demonstrate poor social skills as well as high levels of peer-rated unhappiness
(Volling, Mackinnon-Lewis, Rabiner, & Baradaran, 1993) and loneliness and social
dissatisfaction (Parkhurst & Asher, 1992).

Psychological adjustment results for the other three subtypes were largely unremarkable,
however differences from non-withdrawn children were noted in many areas. Unexpectedly,
whereas children within the passive-anxious subtype were not viewed by peers as those who
worry excessively, children who were clustered within the unsociable/passive-anxious combined
subtype were. Perhaps children interpreted the items such that those who were nominated for
both the passive-anxious item (i.e. “Some kids act like they want to play with another group of
kids, but they seem afraid or shy, and mostly watch,”) and the unsociable item (i.e. “Some kids
get along well with others, but prefer to play alone,”) demonstrated the approach/avoidance
conflict more clearly and thus were interpreted to be those children who worry a lot and appear
anxious.

Consistent with theory and previous findings, children in the unsociable subtype did not
demonstrate any extreme behaviors, according to peers. As in the literature, more children
within the passive-anxious, unsociable, and unsociable/passive-anxious combined subtypes were
classified as neglected or average social status compared to other social status classifications;
however, this proportion did not appear to be significantly different from the proportion of the total sample that was classified as neglected or average.

The common thread to link the two subtypes that did demonstrate adjustment difficulties was the fact that both groups of children appeared to be highly rejected by peers. Therefore, we suggest that social withdrawal is most likely a risk factor for psychological impairment when children are also rejected by peers. This statement is consistent with findings from Boiven, Hymel, & Bukowski (1995) who also found that peer rejection mediates the relation between social withdrawal and internalizing problems. Regarding the issue of peer rejection of socially withdrawn children in middle childhood, it appears that peers in fourth, fifth, and sixth grades do not necessarily reject children because they are socially withdrawn. Perhaps this is related to the degree or intensity of the withdrawal. This is evident from comparing the social withdrawal item z-scores for each cluster. Whereas the z-scores for the passive-anxious, unsociable/passive-anxious, and unsociable clusters reflected mild (i.e. low) withdrawal, the z-scores for the overall withdrawn cluster and the active-isolate cluster were much more extreme (i.e. high). In other words, the more of a consensus among peers that a child is socially withdrawn, then the more likely a child is to be rejected, and at risk for psychological impairment.

Several limitations are apparent within this study. First, whereas the use of cluster analysis to identify socially withdrawn subtypes has certain advantages, this method does not necessarily find clearly delineated clusters. As was the case in this study, it appeared that there is some overlap between passive-anxious and unsociable subtypes of social withdrawal, at least in the eyes of peers. This makes evaluations of and predictions for psychological adjustment more difficult and complicated. Second, the use of peer-ratings can also serve as both an advantage and a disadvantage. On one hand, peers may have more knowledge of social behavior
of other children, particularly in unstructured settings, compared to teachers and parents. However, peers may not be as adept and skilled as adults in interpreting social behavior, thus also inhibiting the clear delineation of subtypes. Third, whereas the use of a clinically-normed measure is an advantage for the purpose of determining clinical significance, the items on the BASC-TRS and the BASC-SRP are educationally-oriented versus more socially-oriented. As a result, it may not be as sensitive to social issues as other measures of adjustment.

Within the social withdrawal literature, potential future areas of investigation include more longitudinal studies to examine both the psychological adjustment and peer relationships of subtypes of socially withdrawn children over time, particularly from middle childhood through adolescence. This might yield more information as to the impact of developmental age on adjustment levels of socially withdrawn children. Additional studies of what subtypes of social withdrawal exist using a variety of methods could assist in understanding how different children come to be socially withdrawn as well as differences in outcomes for these children.
References


potential pathogenesis and sesquela. In Schmidt, L.A., & Schulkin, J. (Eds.) Extreme


status: A cross-age perspective. Developmental Psychology, 18, 557-570.

Coie, J.D., & Kupersmidt, J. (1983). A behavioral analysis of emerging social status in

methodological approaches. In Gitlin-Weiner, K., Sandgrund, A., & Schaefer, C. Play

preschool: The development and validation of the Preschool Play Behavior Scale. Social
Development, 7, 72-91.

alone, playing alone, and acting alone: Distinguishing among reticence and passive and


### Table 1
BASC Teacher Rating Scales and Descriptions

<table>
<thead>
<tr>
<th>Scale</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clinical Scales</strong></td>
<td></td>
</tr>
<tr>
<td>Aggression</td>
<td>The tendency to act in a hostile manner (either verbal or physical) that is threatening to others.</td>
</tr>
<tr>
<td>Conduct Problems</td>
<td>The tendency to engage in antisocial and rule-breaking behavior, including destroying property.</td>
</tr>
<tr>
<td>Hyperactivity</td>
<td>The tendency to be overly active, rush through work or activities, and act without thinking.</td>
</tr>
<tr>
<td>Anxiety</td>
<td>The tendency to be nervous, fearful, or worried about real or imagined problems.</td>
</tr>
<tr>
<td>Depression</td>
<td>Feelings of unhappiness, sadness, and stress that may result in an inability to carry out everyday activities or may bring on thoughts of suicide.</td>
</tr>
<tr>
<td>Somatization</td>
<td>The tendency to be overly sensitive to and complain about relatively minor physical problems and discomforts.</td>
</tr>
<tr>
<td>Attention Problems</td>
<td>The tendency to be easily distracted and unable to concentrate more than momentarily.</td>
</tr>
<tr>
<td>Learning Problems</td>
<td>The presence of academic difficulties, particularly in understanding or completing schoolwork.</td>
</tr>
<tr>
<td>Atypicality</td>
<td>The tendency to behave in ways that are immature, considered “odd”, or commonly associated with psychosis (such as</td>
</tr>
</tbody>
</table>
experiencing visual or auditory hallucinations).

Withdrawal

The tendency to evade others to avoid social contact.

Adaptive Scales

Adaptability

The ability to adapt readily to changes in the environment.

Social Skills

The skills necessary for interacting successfully with peers and adults in home, school, and community settings.

Leadership

The skills associated with accomplishing academic, social, or community goals, including, in particular, the ability to work well with others.

Study Skills

The skills that are conducive to strong academic performance, including organizational skills and good study habits.

Note: Adapted from Reynolds and Kamphaus (1992).
<table>
<thead>
<tr>
<th>Scale</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clinical Scales</strong></td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td>Feelings of nervousness, worry, and fear; the tendency to be overwhelmed by problems.</td>
</tr>
<tr>
<td>Depression</td>
<td>Feelings of unhappiness, sadness, and dejection; a belief that nothing goes right.</td>
</tr>
<tr>
<td>Locus of Control</td>
<td>The belief that rewards and punishments are controlled by external events or other people.</td>
</tr>
<tr>
<td>Sense of Inadequacy</td>
<td>Perceptions of being unsuccessful in school, unable to achieve one’s goals, and generally inadequate.</td>
</tr>
<tr>
<td>Atypicality</td>
<td>The tendency toward gross mood swings, bizarre thoughts, subjective experiences, or obsessive-compulsive thoughts and behaviors often considered “odd.”</td>
</tr>
<tr>
<td>Social Stress</td>
<td>Feelings of stress and tension in personal relationships; a feeling of being excluded from social activities.</td>
</tr>
<tr>
<td><strong>Adaptive Scales</strong></td>
<td></td>
</tr>
<tr>
<td>Interpersonal Relations</td>
<td>The perception of having good social relationships and friendships with peers.</td>
</tr>
<tr>
<td>Self-Reliance</td>
<td>Confidence in one’s ability to solve problems; a belief in one’s personal dependability and decisiveness.</td>
</tr>
</tbody>
</table>

**Note:** Adapted from Reynolds and Kamphaus (1992).
### Table 3
Behavior Nomination Items Pertaining to Subscales of Peer-Nominated Behavior

<table>
<thead>
<tr>
<th>Scale Name</th>
<th>Scale Items</th>
</tr>
</thead>
</table>
| **Prosocial (.93)** | Somebody who is really good to have as part of you group, because this person is agreeable and cooperates- he or she pitches in, shares, and gives everyone a turn.  
This person is dependable and someone you can trust.  
This is a person who plays fair.  
Somebody who is easy to talk to- this person is usually happy and cheerful, talks easily with others, and is a good listener.  
Somebody who is fun to hang around, because this person has a good sense of humor and has good ideas for things to do.  
This is the type of person who is good at solving problems: when kids are arguing and having trouble getting along, this person can help them solve the problem.  
This is the type of person who helps others who are hurt, sick, or sad: they show a lot of concern for others. |
| **Odd (.90)**   | Somebody who just seems odd, because they say things that don’t make sense.  
This person seems odd or weird.  
This is a person who seems strange and different from other kids your age. |
<table>
<thead>
<tr>
<th>Trait</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sad/Worry (.76)</td>
<td>This person gets his or her feelings easily hurt.</td>
</tr>
<tr>
<td></td>
<td>This person often seems sad or unhappy.</td>
</tr>
<tr>
<td></td>
<td>This person worries a lot and is scared of lots of things.</td>
</tr>
<tr>
<td>Physical</td>
<td>Somebody who tries to get what he or she wants by hitting, shoving, pushing, or threatening others.</td>
</tr>
<tr>
<td></td>
<td>This is a person who bullies and picks on other kids.</td>
</tr>
<tr>
<td>Aggression (.84)</td>
<td>This person has a way of upsetting everything when he or she gets into a group- he or she doesn’t share and tries to get everyone to do things their way.</td>
</tr>
<tr>
<td></td>
<td>Somebody who gets out of his/her seat a lot, makes a lot of noise, and bothers other people who are trying to do their work.</td>
</tr>
<tr>
<td></td>
<td>This person interrupts others, can’t wait for his/her turn, and barges in when others are playing or talking.</td>
</tr>
<tr>
<td></td>
<td>This person doesn’t follow the rules and talks back to the teacher.</td>
</tr>
<tr>
<td>Disruptive (.92)</td>
<td>This person loses things, gets in trouble for not doing their work, and does not follow directions.</td>
</tr>
<tr>
<td></td>
<td>This person doesn’t pay attention to what is going on- somebody whose mind seems to wander a lot or who seems “spacey”.</td>
</tr>
<tr>
<td>Inattentive (.89)</td>
<td>This person gets chosen by the others as the leader. Other people like to have this person in charge.</td>
</tr>
<tr>
<td>Leadership</td>
<td>This is a person who seems to have a lot of self-confidence (belief in himself/herself).</td>
</tr>
</tbody>
</table>
Note: Alpha coefficients are listed in parentheses after each scale name made up of more than one item.
Table 4  
Four-Cluster Solution

<table>
<thead>
<tr>
<th>Item</th>
<th>#1</th>
<th>#2</th>
<th>#3</th>
<th>#4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n= 248</td>
<td>n= 155</td>
<td>n= 60</td>
<td>n= 49</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Unsociable</td>
<td>-.67</td>
<td>.42</td>
<td>.13</td>
<td>.59</td>
</tr>
<tr>
<td>Passive-anxious</td>
<td>-.62</td>
<td>.38</td>
<td>.04</td>
<td>.60</td>
</tr>
<tr>
<td>Active-isolate</td>
<td>-.52</td>
<td>.33</td>
<td>.08</td>
<td>.65</td>
</tr>
<tr>
<td>% of sample</td>
<td>48%</td>
<td>30%</td>
<td>12%</td>
<td>9%</td>
</tr>
<tr>
<td>% male</td>
<td>54%</td>
<td>46%</td>
<td>32%</td>
<td>53%</td>
</tr>
</tbody>
</table>

Note: Cubic Cluster Criterion= 6.32
Table 5
Five-Cluster Solution

<table>
<thead>
<tr>
<th>Item</th>
<th>#1</th>
<th>#2</th>
<th>#3</th>
<th>#4</th>
<th>#5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n= 247</td>
<td>n= 138</td>
<td>n= 61</td>
<td>n= 30</td>
<td>n= 36</td>
</tr>
<tr>
<td></td>
<td>M  SD</td>
<td>M  SD</td>
<td>M  SD</td>
<td>M  SD</td>
<td>M  SD</td>
</tr>
<tr>
<td>Unsociable</td>
<td>-.66  .43</td>
<td>.12  .56</td>
<td>1.20  .72</td>
<td>2.04  .76</td>
<td>.32  .82</td>
</tr>
<tr>
<td>Passive-anxious</td>
<td>-.65  .36</td>
<td>.14  .59</td>
<td>1.22  .75</td>
<td>2.17  .79</td>
<td>.06  .62</td>
</tr>
<tr>
<td>Active-isolate</td>
<td>-.49  .36</td>
<td>-.15  .48</td>
<td>.09  .62</td>
<td>2.44  .81</td>
<td>1.80  .77</td>
</tr>
<tr>
<td>% of sample</td>
<td>48%</td>
<td>27%</td>
<td>12%</td>
<td>6%</td>
<td>7%</td>
</tr>
<tr>
<td>% male</td>
<td>55%</td>
<td>41%</td>
<td>36%</td>
<td>43%</td>
<td>64%</td>
</tr>
</tbody>
</table>

Note: Cubic Cluster Criterion= 5.84
Table 6  
Six-Cluster Solution

<table>
<thead>
<tr>
<th>Item</th>
<th>#1</th>
<th>#2</th>
<th>#3</th>
<th>#4</th>
<th>#5</th>
<th>#6</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>240</td>
<td>92</td>
<td>52</td>
<td>65</td>
<td>30</td>
<td>33</td>
</tr>
<tr>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unsociable</td>
<td>-.68</td>
<td>-.22</td>
<td>1.11</td>
<td>.82</td>
<td>2.04</td>
<td>.32</td>
</tr>
<tr>
<td></td>
<td>.39</td>
<td>.43</td>
<td>.59</td>
<td>.64</td>
<td>.76</td>
<td>.80</td>
</tr>
<tr>
<td>Passive-anxious</td>
<td>-.65</td>
<td>.50</td>
<td>1.38</td>
<td>-.46</td>
<td>2.17</td>
<td>.07</td>
</tr>
<tr>
<td></td>
<td>.33</td>
<td>.48</td>
<td>.62</td>
<td>.40</td>
<td>.79</td>
<td>.60</td>
</tr>
<tr>
<td>Active-isolate</td>
<td>-.50</td>
<td>-.15</td>
<td>.11</td>
<td>-.11</td>
<td>2.44</td>
<td>1.88</td>
</tr>
<tr>
<td></td>
<td>.36</td>
<td>.50</td>
<td>.60</td>
<td>.54</td>
<td>.81</td>
<td>.76</td>
</tr>
<tr>
<td>% of sample</td>
<td>47%</td>
<td>18%</td>
<td>10%</td>
<td>13%</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>% male</td>
<td>55%</td>
<td>43%</td>
<td>30%</td>
<td>42%</td>
<td>43%</td>
<td>67%</td>
</tr>
</tbody>
</table>

Note: Cubic Cluster Criterion = 6.62
<table>
<thead>
<tr>
<th>Item</th>
<th>#1</th>
<th>#2</th>
<th>#3</th>
<th>#4</th>
<th>#5</th>
<th>#6</th>
<th>#7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n= 223</td>
<td>n= 90</td>
<td>n= 50</td>
<td>n= 79</td>
<td>n= 34</td>
<td>n= 27</td>
<td>n= 9</td>
</tr>
<tr>
<td></td>
<td>M  SD</td>
<td>M  SD</td>
<td>M  SD</td>
<td>M  SD</td>
<td>M  SD</td>
<td>M  SD</td>
<td>M  SD</td>
</tr>
<tr>
<td>Unsociable</td>
<td>-.73 .35</td>
<td>-.24 .42</td>
<td>1.07 .63</td>
<td>.60 .55</td>
<td>1.66 .71</td>
<td>.20 .82</td>
<td>2.43 .97</td>
</tr>
<tr>
<td>Passive-anxious</td>
<td>-.65 .34</td>
<td>.47 .46</td>
<td>1.32 .63</td>
<td>-.52 .37</td>
<td>1.54 .72</td>
<td>-.10 .49</td>
<td>3.03 .44</td>
</tr>
<tr>
<td>Active-isolate</td>
<td>-.50 .35</td>
<td>-.12 .50</td>
<td>-.07 .51</td>
<td>-.22 .51</td>
<td>1.84 .62</td>
<td>1.91 .80</td>
<td>3.22 .77</td>
</tr>
<tr>
<td>% of sample</td>
<td>44% 18%</td>
<td>10% 15%</td>
<td>7% 5%</td>
<td>1%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% male</td>
<td>57% 44%</td>
<td>30% 37%</td>
<td>47% 70%</td>
<td>44%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Cubic Cluster Criterion= 5.13
<table>
<thead>
<tr>
<th>Cluster</th>
<th>5-Cluster Solution</th>
<th>6-Cluster Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-withdrawn</td>
<td>6/6</td>
<td>6/6</td>
</tr>
<tr>
<td>Active-Isolate</td>
<td>3/6</td>
<td>6/6</td>
</tr>
<tr>
<td>Overall Withdrawn</td>
<td>6/6</td>
<td>6/6</td>
</tr>
<tr>
<td>Passive-Anxious/Unsociable</td>
<td>4/6</td>
<td>6/6</td>
</tr>
<tr>
<td>Average</td>
<td>3/6</td>
<td>4/6</td>
</tr>
<tr>
<td>Passive-Anxious</td>
<td>2/6</td>
<td>4/6</td>
</tr>
<tr>
<td>Unsociable</td>
<td>3/6</td>
<td>3/6</td>
</tr>
<tr>
<td>Extremely Withdrawn</td>
<td>1/6</td>
<td>1/6</td>
</tr>
<tr>
<td>Active-Isolate/Unsociable</td>
<td>2/6</td>
<td>0/6</td>
</tr>
</tbody>
</table>

Note: Bolded tallies indicate clusters found in the corresponding cluster analysis of the whole sample (N= 512).
Table 9  
Means and Standard Deviations of Peer-Nominated Behaviors

<table>
<thead>
<tr>
<th></th>
<th>Non-Withdrawn (n=240)</th>
<th>Passive-Anxious (n=92)</th>
<th>Unsociable/Passive-Anx (n=52)</th>
<th>Unsociable (n=65)</th>
<th>Overall Withdrawn (n=30)</th>
<th>Active-Isolate (n=33)</th>
<th>F (4,271)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Prosocial</td>
<td>.08</td>
<td>.80</td>
<td>-.08</td>
<td>.77</td>
<td>.34</td>
<td>.90</td>
<td>.06</td>
</tr>
<tr>
<td>Odd</td>
<td>-.31</td>
<td>.53</td>
<td>-.10</td>
<td>.62</td>
<td>-.07</td>
<td>.58</td>
<td>-.12</td>
</tr>
<tr>
<td>Worry</td>
<td>-.37</td>
<td>.53</td>
<td>.04</td>
<td>.63</td>
<td>.72</td>
<td>.84</td>
<td>-.15</td>
</tr>
<tr>
<td>Physical Aggression</td>
<td>.09</td>
<td>.88</td>
<td>-.11</td>
<td>.78</td>
<td>-.46</td>
<td>.43</td>
<td>-.05</td>
</tr>
<tr>
<td>Disruptive</td>
<td>.02</td>
<td>.80</td>
<td>-.13</td>
<td>.71</td>
<td>-.36</td>
<td>.56</td>
<td>-.12</td>
</tr>
<tr>
<td>Inattention</td>
<td>-.09</td>
<td>.81</td>
<td>-.14</td>
<td>.66</td>
<td>-.36</td>
<td>.70</td>
<td>-.10</td>
</tr>
<tr>
<td>Leader</td>
<td>.27</td>
<td>1.07</td>
<td>-.21</td>
<td>.83</td>
<td>-.04</td>
<td>.88</td>
<td>-.15</td>
</tr>
<tr>
<td>Self-Confidence</td>
<td>.16</td>
<td>1.03</td>
<td>-.19</td>
<td>.77</td>
<td>.09</td>
<td>.96</td>
<td>-.00</td>
</tr>
</tbody>
</table>

Note: 1 p≤.01. Means with the same letter are not significantly different. Means are reported as z-scores with a mean of 0 and a standard deviation of 1. Means that are one-half of one standard deviation above or below the mean are reported as **numbers**. **Numbers** indicate means that are significantly different from the non-withdrawn cluster means as calculated by pairwise contrasts at the p≤.01 level.
Table 10
Sociometric Status of Clusters

<table>
<thead>
<tr>
<th></th>
<th>T%</th>
<th>Passive-Anxious</th>
<th>Unsoc./Pass.-Anx</th>
<th>Unsoc.</th>
<th>Overall With.</th>
<th>Active-Isolate</th>
<th>χ²</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Popular</td>
<td>25.4</td>
<td>16</td>
<td>17.4</td>
<td>9</td>
<td>17.3</td>
<td>15</td>
<td>23.1</td>
</tr>
<tr>
<td>Rejected</td>
<td>22.7</td>
<td>21</td>
<td>22.8</td>
<td>10</td>
<td>19.2</td>
<td>12</td>
<td>18.5</td>
</tr>
<tr>
<td>Neglected</td>
<td>17.6</td>
<td>23</td>
<td>25.0</td>
<td>14</td>
<td>26.9</td>
<td>14</td>
<td>21.5</td>
</tr>
<tr>
<td>Controv.</td>
<td>7.8</td>
<td>4</td>
<td>4.4</td>
<td>5</td>
<td>9.6</td>
<td>5</td>
<td>7.7</td>
</tr>
<tr>
<td>Average</td>
<td>26.6</td>
<td>28</td>
<td>30.4</td>
<td>14</td>
<td>26.9</td>
<td>19</td>
<td>29.2</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>92</td>
<td>100</td>
<td>52</td>
<td>100</td>
<td>65</td>
<td>100</td>
</tr>
</tbody>
</table>

Notes: ¹ p<.0001, χ²(4, 268); % is percent of cluster that is classified as the corresponding status. T% is the percent of the total sample (n= 512) that is classified as the corresponding status.
<table>
<thead>
<tr>
<th>Scale</th>
<th>Non-Withdrawn (n=240)</th>
<th>Pass.Anx. (n=92)</th>
<th>Uns./Pass.Anx. (n=52)</th>
<th>Unsociable (n=65)</th>
<th>Overall Withdrawn (n=30)</th>
<th>Active-Isolate (n=33)</th>
<th>F (4,260)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clinical Scales</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hyperactive</td>
<td>51.4</td>
<td>60</td>
<td>50.6b</td>
<td>45</td>
<td>49.5b</td>
<td>45</td>
<td>50.2b</td>
</tr>
<tr>
<td>Aggressive</td>
<td>52.8</td>
<td>72</td>
<td>51.1b</td>
<td>67</td>
<td>47.2b</td>
<td>53</td>
<td>49.9b</td>
</tr>
<tr>
<td>Conduct Problems</td>
<td>52.6</td>
<td>73</td>
<td>52.0b</td>
<td>73</td>
<td>49.2b</td>
<td>62</td>
<td>51.9b</td>
</tr>
<tr>
<td>Anxiety</td>
<td>49.2</td>
<td>53</td>
<td>50.5b</td>
<td>58</td>
<td>50.2b</td>
<td>57</td>
<td>49.9b</td>
</tr>
<tr>
<td>Depression</td>
<td>47.7</td>
<td>51</td>
<td>49.9b</td>
<td>61</td>
<td>47.9b</td>
<td>55</td>
<td>48.9b</td>
</tr>
<tr>
<td>Somatization</td>
<td>52.1</td>
<td>68</td>
<td>53.4</td>
<td>72</td>
<td>55.9</td>
<td>79</td>
<td>53.6</td>
</tr>
<tr>
<td>Attention Problems</td>
<td>51.8</td>
<td>62</td>
<td>52.7bc</td>
<td>65</td>
<td>49.4c</td>
<td>53</td>
<td>52.1bc</td>
</tr>
<tr>
<td>Learning Problems</td>
<td>49.7</td>
<td>56</td>
<td>52.8bc</td>
<td>66</td>
<td>50.8c</td>
<td>60</td>
<td>52.6bc</td>
</tr>
<tr>
<td>Atypicality</td>
<td>50.0</td>
<td>67</td>
<td>50.4b</td>
<td>67</td>
<td>49.8b</td>
<td>66</td>
<td>49.3b</td>
</tr>
<tr>
<td>Withdrawn</td>
<td>46.3</td>
<td>76</td>
<td>48.3c</td>
<td>54</td>
<td>51.8abc</td>
<td>67</td>
<td>49.1c</td>
</tr>
<tr>
<td><strong>Adaptive Scales</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Skills</td>
<td>48.0</td>
<td>42</td>
<td>48.4ab</td>
<td>44</td>
<td>50.8a</td>
<td>53</td>
<td>48.4ab</td>
</tr>
<tr>
<td>Leadership</td>
<td>47.8</td>
<td>43</td>
<td>45.0ab</td>
<td>33</td>
<td>46.5a</td>
<td>39</td>
<td>46.0a</td>
</tr>
<tr>
<td></td>
<td>Study Skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
<td>--------------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
</tr>
<tr>
<td></td>
<td>47.9</td>
<td>40</td>
<td>46.6&lt;sup&gt;ab&lt;/sup&gt;</td>
<td>37</td>
<td>49.3&lt;sup&gt;a&lt;/sup&gt;</td>
<td>45</td>
<td>47.4&lt;sup&gt;ab&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>46.6</td>
<td>45</td>
<td>47.4&lt;sup&gt;ab&lt;/sup&gt;</td>
<td>39</td>
<td>43.1&lt;sup&gt;bc&lt;/sup&gt;</td>
<td>27</td>
<td><strong>39.6&lt;sup&gt;c&lt;/sup&gt;</strong></td>
</tr>
<tr>
<td></td>
<td>49.3&lt;sup&gt;a&lt;/sup&gt;</td>
<td>45</td>
<td>47.4&lt;sup&gt;ab&lt;/sup&gt;</td>
<td>39</td>
<td>43.1&lt;sup&gt;bc&lt;/sup&gt;</td>
<td>27</td>
<td>39.6&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>47.1&lt;sup&gt;b&lt;/sup&gt;</td>
<td>37</td>
<td>47.1&lt;sup&gt;b&lt;/sup&gt;</td>
<td>37</td>
<td>44.9&lt;sup&gt;b&lt;/sup&gt;</td>
<td>32</td>
<td><strong>40.0&lt;sup&gt;c&lt;/sup&gt;</strong></td>
</tr>
<tr>
<td></td>
<td>52.4&lt;sup&gt;a&lt;/sup&gt;</td>
<td>54</td>
<td>47.1&lt;sup&gt;b&lt;/sup&gt;</td>
<td>37</td>
<td>44.9&lt;sup&gt;b&lt;/sup&gt;</td>
<td>32</td>
<td><strong>40.0&lt;sup&gt;c&lt;/sup&gt;</strong></td>
</tr>
<tr>
<td></td>
<td>47.1&lt;sup&gt;b&lt;/sup&gt;</td>
<td>37</td>
<td>47.1&lt;sup&gt;b&lt;/sup&gt;</td>
<td>37</td>
<td>44.9&lt;sup&gt;b&lt;/sup&gt;</td>
<td>32</td>
<td><strong>40.0&lt;sup&gt;c&lt;/sup&gt;</strong></td>
</tr>
<tr>
<td></td>
<td>54</td>
<td>47.1&lt;sup&gt;b&lt;/sup&gt;</td>
<td>37</td>
<td>44.9&lt;sup&gt;b&lt;/sup&gt;</td>
<td>32</td>
<td><strong>40.0&lt;sup&gt;c&lt;/sup&gt;</strong></td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>52.4&lt;sup&gt;a&lt;/sup&gt;</td>
<td>54</td>
<td>47.1&lt;sup&gt;b&lt;/sup&gt;</td>
<td>37</td>
<td>44.9&lt;sup&gt;b&lt;/sup&gt;</td>
<td>32</td>
<td><strong>40.0&lt;sup&gt;c&lt;/sup&gt;</strong></td>
</tr>
<tr>
<td></td>
<td>47.1&lt;sup&gt;b&lt;/sup&gt;</td>
<td>37</td>
<td>47.1&lt;sup&gt;b&lt;/sup&gt;</td>
<td>37</td>
<td>44.9&lt;sup&gt;b&lt;/sup&gt;</td>
<td>32</td>
<td><strong>40.0&lt;sup&gt;c&lt;/sup&gt;</strong></td>
</tr>
</tbody>
</table>

**Note:**<sup>1</sup> p<.01. Means with the same letter are not significantly different. **Numbers** indicate above (clinical scales) or below (adaptive scales) average cluster scores, determined by mean T-scores that are one-half of one standard deviation from a mean T-score of 50. **Numbers** indicate means that are significantly different from the non-withdrawn cluster means as calculated by pairwise contrasts at the p<.01 level.
### Table 12
Percentage of Each Cluster Falling Within the Clinical At-Risk Range on Each BASC-TRS Scale

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clinical Scales</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hyperactive</td>
<td>14.6</td>
<td>4.2</td>
<td>12.5</td>
<td>3.6</td>
<td><strong>37.5</strong></td>
<td>10.7</td>
<td>21.5(^1)</td>
</tr>
<tr>
<td>Aggressive</td>
<td>14.6</td>
<td>6.3</td>
<td>15.6</td>
<td>7.1</td>
<td><strong>28.1</strong></td>
<td>13.8</td>
<td>8.9</td>
</tr>
<tr>
<td>Conduct Problems</td>
<td>20.2</td>
<td>8.3</td>
<td>12.5</td>
<td>18.5</td>
<td><strong>40.6</strong></td>
<td>18.6</td>
<td>15.4(^1)</td>
</tr>
<tr>
<td>Anxiety</td>
<td>11.2</td>
<td>8.3</td>
<td>10.9</td>
<td><strong>28.6</strong></td>
<td>6.3</td>
<td>9.5</td>
<td>9.1</td>
</tr>
<tr>
<td>Depression</td>
<td>7.9</td>
<td>6.3</td>
<td>9.4</td>
<td><strong>28.6</strong></td>
<td><strong>21.9</strong></td>
<td>8.6</td>
<td>13.7(^1)</td>
</tr>
<tr>
<td>Somatization</td>
<td>25.8</td>
<td><strong>37.5</strong></td>
<td>31.3</td>
<td>28.6</td>
<td>31.3</td>
<td>24.5</td>
<td>2.1</td>
</tr>
<tr>
<td>Attention Problems</td>
<td>14.6</td>
<td>8.3</td>
<td>15.6</td>
<td>21.4</td>
<td><strong>28.1</strong></td>
<td>12.6</td>
<td>6.3</td>
</tr>
<tr>
<td>Learning Problems</td>
<td>15.7</td>
<td>14.6</td>
<td>20.3</td>
<td><strong>28.6</strong></td>
<td><strong>34.4</strong></td>
<td>14.2</td>
<td>7.2</td>
</tr>
<tr>
<td>Atypicality</td>
<td>12.4</td>
<td>14.6</td>
<td>9.4</td>
<td><strong>32.1</strong></td>
<td><strong>31.3</strong></td>
<td>13.0</td>
<td>13.6(^1)</td>
</tr>
<tr>
<td>Withdrawn</td>
<td>2.3</td>
<td>6.3</td>
<td>3.1</td>
<td><strong>28.6</strong></td>
<td>9.4</td>
<td>4.9</td>
<td>25.2(^1)</td>
</tr>
<tr>
<td><strong>Adaptive Scales</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Skills</td>
<td>15.7</td>
<td>8.3</td>
<td>7.8</td>
<td>10.7</td>
<td><strong>37.5</strong></td>
<td>13.0</td>
<td>17.8(^1)</td>
</tr>
<tr>
<td>Leadership</td>
<td>27.0</td>
<td>12.5</td>
<td>25.0</td>
<td><strong>28.6</strong></td>
<td><strong>31.3</strong></td>
<td>18.9</td>
<td>5.1</td>
</tr>
<tr>
<td>Study Skills</td>
<td>16.9</td>
<td>12.5</td>
<td>15.6</td>
<td><strong>28.5</strong></td>
<td><strong>46.9</strong></td>
<td>17.3</td>
<td>18.2(^1)</td>
</tr>
<tr>
<td>Adaptability</td>
<td>16.4</td>
<td>2.4</td>
<td>21.6</td>
<td>20.0</td>
<td><strong>58.0</strong></td>
<td>15.2</td>
<td>21.5(^1)</td>
</tr>
</tbody>
</table>

Notes: \(^1\) \(p < .01\); \(\chi^2\) (4, 261). T% refers to total percentage of sample meeting cutoff criteria (percentiles ≥ 90 for clinical scales, ≤ 10 for adaptive scales). Clusters with an overrepresentation of members (i.e., > 10% higher than total percentage of sample) at-risk are identified by **numbers**.
Table 13
Means and Percentiles of BASC-SRP T-Scores

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>T</td>
<td>%ile</td>
<td>T</td>
<td>%ile</td>
<td>T</td>
<td>%ile</td>
<td>T</td>
</tr>
<tr>
<td><strong>Clinical Scales</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td>46.9</td>
<td>41</td>
<td>51.1</td>
<td>54</td>
<td>52.4</td>
<td>57</td>
<td>49.7</td>
</tr>
<tr>
<td>Depression</td>
<td>48.9</td>
<td>59</td>
<td>51.2</td>
<td>64</td>
<td>53.0</td>
<td>70</td>
<td>53.0</td>
</tr>
<tr>
<td>Locus of Control</td>
<td>49.9</td>
<td>54</td>
<td>50.5</td>
<td>56</td>
<td>51.8</td>
<td>60</td>
<td>51.1</td>
</tr>
<tr>
<td>Sense of Inadequacy</td>
<td>50.6</td>
<td>62</td>
<td>54.2</td>
<td>72</td>
<td>53.1</td>
<td>69</td>
<td>52.3</td>
</tr>
<tr>
<td>Atypicality</td>
<td>50.1</td>
<td>57</td>
<td>51.8</td>
<td>62</td>
<td>52.9</td>
<td>64</td>
<td>51.2</td>
</tr>
<tr>
<td>Social Stress</td>
<td>46.5</td>
<td>42</td>
<td>48.7</td>
<td>49</td>
<td>50.4</td>
<td>54</td>
<td>50.3</td>
</tr>
<tr>
<td><strong>Adaptive Scales</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interpersonal Relations</td>
<td>53.2</td>
<td>46</td>
<td>49.9</td>
<td>34</td>
<td>50.2</td>
<td>35</td>
<td>49.1</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>51.9</td>
<td>39</td>
<td>50.0</td>
<td>34</td>
<td>48.3</td>
<td>30</td>
<td>47.8</td>
</tr>
<tr>
<td>Self-reliance</td>
<td>52.7</td>
<td>50</td>
<td>50.5</td>
<td>41</td>
<td>48.7</td>
<td>35</td>
<td>49.5</td>
</tr>
</tbody>
</table>
Notes: Note: $^1_{p \leq .01}$. Means with the same letter are not significantly different. **Numbers** indicate above (clinical scales) or below (adaptive scales) average cluster scores, determined by mean T-scores that are one-half of one standard deviation (i.e. 5 points) from a T-score of 50. **Numbers** indicate means that are significantly different from the non-withdrawn cluster means as calculated by pairwise contrasts at the $p \leq .01$ level.
### Table 14
Percentage of Each Cluster Falling Within the Clinical At-Risk Range on Each BASC-SRP Scale

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clinical Scales</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td>17.6</td>
<td>20.4</td>
<td>15.6</td>
<td>20.0</td>
<td>18.8</td>
<td>13.1</td>
<td>.5</td>
</tr>
<tr>
<td>Depression</td>
<td>16.5</td>
<td>16.0</td>
<td>20.3</td>
<td>33.3</td>
<td>50.0</td>
<td>15.6</td>
<td>18.7¹</td>
</tr>
<tr>
<td>Locus of Control</td>
<td>11.0</td>
<td>16.7</td>
<td>10.9</td>
<td>10.0</td>
<td>43.8</td>
<td>12.7</td>
<td>22.2¹</td>
</tr>
<tr>
<td>Sense of Inadequacy</td>
<td>15.4</td>
<td>24.0</td>
<td>18.8</td>
<td>20.0</td>
<td>46.9</td>
<td>16.6</td>
<td>14.4¹</td>
</tr>
<tr>
<td>Atypicality</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>--</td>
</tr>
<tr>
<td>Social Stress</td>
<td>13.2</td>
<td>8.0</td>
<td>12.5</td>
<td>36.7</td>
<td>28.1</td>
<td>10.9</td>
<td>16.1¹</td>
</tr>
<tr>
<td><strong>Adaptive Scales</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interpersonal Relations</td>
<td>11.0</td>
<td>22.0</td>
<td>15.9</td>
<td>50.0</td>
<td>50.0</td>
<td>15.7</td>
<td>34.4¹</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>7.7</td>
<td>12.0</td>
<td>10.9</td>
<td>6.7</td>
<td>12.5</td>
<td>6.9</td>
<td>1.4</td>
</tr>
<tr>
<td>Self-Reliance</td>
<td>11.0</td>
<td>16.0</td>
<td>14.1</td>
<td>6.7</td>
<td>18.8</td>
<td>10.1</td>
<td>2.8</td>
</tr>
</tbody>
</table>

Notes: ¹ p< .01; χ² (4, 267). T% refers to total percentage of sample meeting cutoff criteria. Clusters with an overrepresentation of members (i.e., > 10% higher than total percentage of sample) at-risk are identified by **numbers**.
Table 15  
Means and Standard Deviations on Non-Nationally-Normed Self-Report Measures

<table>
<thead>
<tr>
<th></th>
<th>Non- Withdrawn (n=240)</th>
<th>Passive- Anxious (n= 92)</th>
<th>Unsociable/ Passive-Anx (n= 52)</th>
<th>Unsociable (n= 65)</th>
<th>Overall Withdrawn (n= 30)</th>
<th>Active- Isolate (n= 33)</th>
<th>F (4, 267)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Social Self-Concept</td>
<td>.36</td>
<td>.80</td>
<td>-.06&lt;sup&gt;a&lt;/sup&gt;</td>
<td>1.03</td>
<td>-.03&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.86</td>
<td>-.27&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Social Self-Esteem</td>
<td>.29</td>
<td>.83</td>
<td>-.03&lt;sup&gt;a&lt;/sup&gt;</td>
<td>1.09</td>
<td>-.10&lt;sup&gt;a&lt;/sup&gt;</td>
<td>1.02</td>
<td>-.18&lt;sup&gt;ab&lt;/sup&gt;</td>
</tr>
<tr>
<td>Loneliness and Social Dissatisfaction</td>
<td>-.33</td>
<td>.85</td>
<td>.05&lt;sup&gt;b&lt;/sup&gt;</td>
<td>1.01</td>
<td>.05&lt;sup&gt;b&lt;/sup&gt;</td>
<td>.94</td>
<td>.14&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

Note: <sup>1</sup>p<.01. Means with the same letter are not significantly different. Means are reported as z-scores with a mean of 0 and a standard deviation of 1. Means that are one-half of one standard deviation above or below the mean are reported as numbers. Numbers indicate means that are significantly different from the non-withdrawn cluster means as calculated by pairwise contrasts at the p<.01 level.
CHAPTER 4

DISSERTATION CONCLUSION
Summary of Findings

The goal of this dissertation was to explore the clinical significance of the behavior of social withdrawal in children. First, the importance of studying this behavior was discussed, particularly in the field of school psychology. A discussion of the meaning of clinical significance followed, which outlined that deviation as well as harmful dysfunction (Wakefield, 1997) was required for a behavior to be determined as clinically significant.

In the first manuscript, the problem of the ambiguity of study results involving social withdrawal was presented. Analysis of the possible flaws in previous studies include the fact that in the past, the study of the behavior of social withdrawal has mostly focused only on the behavior and not on the child or the situational, functional, or etiological context of the behavior. To summarize, the behavior of social withdrawal seems to have been determined to be an at-risk behavior in childhood, if not a disorder in itself. However, before further assumptions are made, it is important to understand the context and background as well as the effects of the behavior for the individual. “The meaning of any one attribute, process, or psychopathological condition needs to be considered in light of the complex matrix of individual characteristics, experiences, and social-contextual influences involved, the timing of events and experiences, and the developmental history of the individual” (Ciccetti & Rogosch, 1996, p. 599). Accordingly, social withdrawal may or may not be deemed as pathological depending on how it fits into a child’s life.

In consideration of the problem analysis discussed above, it appears that the developmental psychopathology perspective, along with its pathways framework and concepts of equifinality and multifinality, is the ideal tool needed to understand the complex research results surrounding the social withdrawal literature. Thus, as a result of examining possible pathways to
social withdrawal as well as possible differing outcomes of this behavior, the following four conclusions were drawn:

1) Research and theory have demonstrated that social withdrawal is indeed a complex behavior, and thus those who consistently demonstrate such behavior should not be conceptualized as a homogenous set in terms of risk for psychopathology.

2) Developmental pathways should be considered as an important factor in the development of various subtypes of social withdrawal.

3) Analysis of developmental pathways leading to social withdrawal can be used to predict levels and types of adjustment and possibly maladjustment.

4) Given differences in social developmental tasks as well as differences in peer perceptions of social withdrawal at different ages, the developmental age of the child should be considered when predicting levels of adjustment for socially withdrawn children.

It is hoped that these four conclusions may be used to guide further research as to the clinical significance of socially withdrawn behavior in children.

The second study aimed to extend current knowledge of subtypes by using peers as reporters of the behavior along with a cluster analysis method. Although the three expected subtypes were found using this method, two additional subtypes were also found. Either of two conclusions could be made by this finding: 1) that the three subtypes as discussed in the literature are not mutually exclusive in the eyes of peers or 2) although some children can distinguish between passive-anxious and unsociable withdrawal, others are less able to do so and thus nominate some children, particularly those who are perceived as highly deviant from other children, for more than one of the social withdrawal nomination items. In other words, children
may not specifically know why a socially withdrawn child is different, just that they are and thus they frequently nominate socially withdrawn children for any item that is perceived as negative. A replication of peer-rated subtypes may yield more information as to which is the correct conclusion.

One conclusion that is evident through examination of the psychological adjustment data is that peer rejection is somehow correlated with impairment. Only the two subtypes that were also rejected by peers seemed to be rated by teachers and through self-report as at-risk for adjustment problems. This demonstrates how the context of socially withdrawn behavior can impact its clinical significance. What role do peers play in the adjustment levels of children? Do peers recognize impaired functioning within a child, or do they actually play a part in causing impairment? Perhaps both are true, in that peers may pick up on a social skill deficit or insecurity and in turn begin to shun such children from various activities; children then miss out on social learning opportunities to correct the dysfunction and in turn impairment becomes more severe.

Future Areas of Research

It is evident from the issues presented in the first manuscript as well as the unexpected results from the second manuscript that more information is needed to understand what subtypes of social withdrawal exist. Although it is difficult if not impossible to identify a set number of distinct and naturally-occurring subtypes of social withdrawal, knowledge of differing pathways, etiologies, and contexts of how children come to demonstrate the behavior can yield more information about differing levels of adjustment and how these pathways may or may not lead to impairment. It appears that research in the area of social withdrawal is increasingly moving towards the study of subtypes of the behavior. It is logical that with the study of subtypes, additional theory about pathways and etiology of the subtypes will also increase.
When considering the relation between social withdrawal and psychological adjustment, the continued use of national clinical norms is also beneficial. Whereas comparison between smaller groups of children (e.g. subtypes within a study) can yield some information about, for example, which group tends to be more anxious or depressed compared to the other, it does not reveal whether a particular group is truly at-risk of developing maladapted psychological functioning. This is due to the fact that the sample sizes of most studies are too small and concentrated (i.e. not representative of national norms) to provide for such information. The use of national norms is necessary to truly evaluate adjustment risk levels for groups of individuals who demonstrate a particular behavior.

Given the theories and limited evidence regarding the importance of developmental age in evaluation of the clinical significance of social withdrawal, more longitudinal studies of subtypes of social withdrawal are highly desirable. As part of the pathways perspective in developmental psychopathology, it is known that deviation and dysfunction can occur anywhere along the development from infant to adult. Given differing social developmental tasks at different ages, it would be beneficial to know when in development different subtypes begin to deviate and thus may or may not show signs of social dysfunction.
References
