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Developmental Language Disorders and Reticence in Childhood

Aimee Diehl

A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Master of Science

Martin Fujiki, Chair
Bonnie Brinton
Douglas Petersen

Department of Communication Disorders

Brigham Young University

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ABSTRACT

Developmental Language Disorders and Reticence in Childhood

Aimee Diehl

Department of Communication Disorders, BYU

Master of Science

Children with developmental language disorder (DLD) struggle in a variety of social contexts. These children display different forms of social withdrawal, the most prevalent being shyness which is behaviorally manifested as reticence. The goal of the current study was to further explore the relationship between DLD and reticence in children using a revised set of items from the Teacher Behavior Rating Scale (TBRIS). A total of 220 children participated in the study. A univariate analysis of variance (ANOVA) was used to determine if there were significant differences related to group, age, and gender on reticence. Findings revealed a significant difference based on group, indicating children with DLD demonstrate significantly higher levels of reticence; however, age and gender were not significant. Interaction effects between the three variables were also not significant. These findings replicated previously reported findings regarding reticence in children with DLD.

Keywords: developmental language disorder, withdrawal, reticence

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DESCRIPTION OF THESIS STRUCTURE

To adhere to traditional thesis requirements and journal publication formats, this thesis, *Developmental Language Disorders and Reticence in Childhood*, is written in a hybrid format. The initial pages of the thesis adhere to university requirements while the thesis report is presented in journal article format. The annotated bibliography is included in Appendix A. An additional table reporting TBRS data is included in Appendix B. Appendix C contains additional participant information.

Introduction

There is considerable evidence that children with developmental language disorder (DLD) struggle with social competence (Fujiki, Brinton, Morgan, & Hart, 1999; Hart, Fujiki, Brinton, & Hart, 2004). These children “are frequently rejected by peers, are unable to establish reciprocal friendships, and demonstrate more problem behaviors and poorer social skills than their typical classmates” (Fujiki, Spackman, Brinton, & Hall, 2004, p. 637). Many of these social problems share a common thread—the avoidance or removal from interactions with peers. Taken as a whole, these behaviors are often referred to as withdrawal (Rubin & Asendorpf, 1993).

Withdrawn behavior is concerning because of the importance of social interaction in child development. Being able to interact in meaningful ways with peers is vital to a child’s learning, development, and overall well-being. As noted by Rubin, Coplan, and Bowker (2009), various researchers have stressed the foundational importance of interacting with others in a child’s ability to take different perspectives, think about the self in relation to others, and develop respect and equality. Rubin and Asendorpf (1993) stressed that social interaction is important for the child’s normal growth and development and helps the child develop “mature social thinking” (p. 6).

Subtypes of Social Withdrawal

Social withdrawal is an umbrella term that includes different behaviors that share as a central core the removing of one’s self from social interaction. Recent study has demonstrated that withdrawn behavior may be influenced by different motivations, and these motivations may vary in terms of negative consequences (Rubin & Coplan, 2010). This work has made it clear that there are different ways in which one can withdraw from social interaction and these subtypes vary in their underlying social motivations.

Two commonly discussed subtypes of withdrawal include unsociability and shyness. The first subtype, unsociability, is often manifest by solitary passive withdrawal. This subtype occurs when a child plays by himself/herself because he/she prefers to be alone and does not have a desire to interact with others (Rubin & Mills, 1988). Although viewed as relatively harmless by parents and teachers, solitary passive withdrawal can be negatively viewed by peers in early and middle childhood (Coplan & Weeks, 2010; Rubin & Mills, 1988). A second subtype of withdrawal is shyness, which is often behaviorally manifest through reticent behavior. Shy children experience a conflicting approach-avoidance motivation (Rubin & Asendorpf, 1993). These children would like to interact with peers but are too afraid to do so. Shy children may end up watching others play as they stand alone and unoccupied (Hart et al., 2004).

Shyness is associated with a host of negative outcomes, such as peer rejection, anxiety, and depression (Rubin, Bowker, & Gazelle, 2010). Unsociability has not been investigated to the same extent; however, the available results are somewhat mixed. There is evidence that unsociable behavior is not harmful (e.g., Harrist, Zaia, Bates, Dodge, & Pettit, 1997). Other researchers, however, have reported various negative outcomes linked to unsociability.

Impact of Withdrawal

As might be expected, a lack of interaction negatively impacts social development as the individual progresses from childhood to adolescence to adulthood. Socially withdrawn children, especially shy children, experience difficulties both in the academic sphere and in the social sphere. For example, there is evidence to suggest that shyness is associated with poor academic competence in early and late childhood (Masten, Morrison, & Pellegrini, 1985). Shyness in childhood can lead to loneliness, depression, and victimization (Rubin et al., 2009). It is notable that shyness has been connected to peer rejection not only in the United States, but also in

several other cultures (Hart et al., 2000). Peer rejection, in turn, is a predictor of poor school performance (as cited by Rubin et al., 2009) and such exclusion and isolation from peers has the potential to lead to increased depression and a decreased ability for the child to regulate negative emotions (Rubin et al., 2010).

Shy children are also more likely to experience poor quality friendships (Rubin et al., 2009). These friendships are characterized by misery and anxiety (Rubin et al., 2010) and have been tied to problems such as mental health disorders, criminal activity, and dropping out of school, which again compound academic problems (see Fujiki et al., 1999 for review). Shy children experience peer exclusion as early as kindergarten and are more at risk to be mistreated by their peers. These children are also at risk for depressive symptoms in later childhood. Coplan and Weeks (2010) found that shy children experience increased social anxiety as compared to typical or even solitary passive withdrawn children (children who choose to be alone).

As noted, unsociability (often measured by considering solitary passive withdrawal) is often thought of as a relatively harmless form of withdrawal in early childhood, especially compared with shyness (Coplan & Weeks, 2010). It has been speculated, however, that solitary passive withdrawal may combine with reticence in later years (Asendorpf, 1991). Solitary passive withdrawal and reticence may merge as the child focuses more on solitary activities or becomes continually less skilled at joining his peers (Hart et al., 2004). Supporting this idea, Nelson et al. (2009) found that unsociability was related to several problematic outcomes in younger children. Because of the problems observed in typically developing children who display social withdrawal, this behavior is also concerning in children with DLD.

Withdrawal in Children with DLD

There is considerable evidence that children with DLD are more withdrawn than their typically developing peers (Conti-Ramsden & Botting, 2004; Coster, Goorhuis-Brouwer, Nakken & Spelberg, 1999; Fujiki et al., 1999; Fujiki et al., 2004; Redmond & Rice, 1998; Wadman, Durkin, & Conti-Ramsden, 2008; Wadman, Durkin, & Conti-Ramsden, 2011). Much of this work, however, has considered withdrawal as a general construct rather than examining specific subtypes of behavior.

Children with DLD have often been found to have high levels of shyness, as indicated by reticent behavior. Fujiki et al. (1999) examined different subtypes of withdrawal in both typical children and children with DLD and found that reticence was the subtype of withdrawal that most strongly separated the two groups—children with DLD were rated by teachers using the Teacher Behavior Rating Scale (TBRS), a three-point rating scale, as demonstrating significantly higher levels of reticence than typical children. In contrast, Fujiki et al. (1999) found that solitary passive withdrawal (indicative of unsociability) did not separate the two groups of children. Hart et al. (2004) also examined the different subtypes of withdrawal in children with DLD. Teacher ratings on the TBRS again found that children with DLD demonstrated significantly higher levels of reticence than their typically developing peers. The same teachers also rated children with DLD as displaying increased levels of solitary passive withdrawal. In both these studies, shyness was the predominating form of withdrawal observed in the children with DLD. Shyness is of particular concern as it is the most frequently seen manifestation of social withdrawal in children with DLD and is connected with a variety of negative consequences.

It has recently been suggested that the TBRS reticence scale would be strengthened by the addition of an item—“Off task and preoccupied” (C. Hart, personal communication, Dec.

12, 2017). Because the addition of one item to a four-item scale has the potential to influence overall outcomes, the goal of the current study was to evaluate withdrawal in children with DLD using the revised scale. In considering withdrawal, it is possible that age and gender are also important variables. Thus, these factors were examined in addition to group. Previous work with children with DLD has only revealed modest age and gender related differences (e.g., Fujiki et al., 1999; Hart et al., 2004). However, these studies were performed on relatively small samples of children and both used the original version of the TBRS reticence subscale. Some researchers working with typical children have suggested that age differences (Nelson et al., 2009) and gender differences (Coplan, Prakash, Oneil, & Armer, 2004; Doey, Coplan, & Kingsbury, 2013) do exist on some aspects of social withdrawal. Thus, it is important to include these variables in the current examination of shy behavior in children with DLD.

Statement of Purpose

The purpose of this study was to further explore shyness in children with DLD, using a revised set of items on the TBRS to determine if children with DLD exhibit more shyness than typical children based on teacher report measures. The following research questions were addressed.

1. Do children with DLD differ from typical developing children in teacher ratings of shyness (as measured by reticent withdrawal), using a revised version of the TBRS?
2. Do younger children differ from older children in teacher ratings of shyness using a revised version of the TBRS?
3. Do male children differ from female children in teacher ratings of shyness using a revised version of the TBRS?

Method

As the current study involved human participants, approval was obtained from the Institutional Review Board in the collection of all of the data used. Before participation in the study, consent forms were obtained from child guardians and the teachers who completed the forms.

Participants

A total of 220 children participated in the study. Data were collected in association with previous studies, as well as data from current projects. Participants were taken from the following studies: Fujiki, Brinton, Isaacson, and Summers (2001), Fujiki, Brinton, and Clarke (2002), Hart et al. (2004), Brinton, Spackman, Fujiki, and Ricks (2007), and Brinton, Fujiki, Hurst, Jones, and Spackman (2015). Children from three different school districts in the western United States participated in the study. Specific socioeconomic status was not available for individual subjects. Participants studied by Hart et al. (2004), were somewhat of an exception, with a measure of socioeconomic status being obtained from U.S. Census Bureau block group data. According to standards established by Zhang and Tomblin (2000), high- and low-income areas could be identified using these data based on the percentage of population above and below the poverty line. A neighborhood was judged to be high income if less than 25% of the population were below the poverty line. Using a similar standard to evaluate the neighborhoods from which participants were drawn, children in this study were living in high income neighborhoods.

Children with DLD

One hundred eleven children with DLD participated in the study, 59 males and 52 females. The ages of the children ranged from 5;10 to 12;6 (years; months). The children were

categorized into two groups according to age. The younger group consisted of children between the ages of 5;10 and 8;11 (males: $M = 7;7$ $SD = 1;0$, females: $M = 7;1$, $SD = 1;1$) and the older group consisted of children between the ages of 9;2 and 12;6 (males: $M = 10;8$ $SD = 0;9$, females: $M = 10;5$ $SD = 0;9$).

Participants in the study were referred by school speech-language pathologists. Each participant had a diagnosis of DLD and received speech and language services through their school. Children in the study were further identified by scoring more than one standard deviation below the mean on a standardized, norm-referenced language test while also producing a score in the typical range on a nonverbal intelligence test. Most of these data were taken from the children's school records. Where testing was not available through the school, researchers administered a standardized, norm-referenced nonverbal intelligence test.

The language tests used included the *Clinical Evaluation of Language Fundamentals—Revised (CELF-R; Semel, Wiig, & Secord, 1987)*, the *Test of Language Development-2: Primary (TOLD-2:P; Newcomer & Hammill, 1988)*, the *Test of Language Development-3: Primary (TOLD-3:P; Newcomer & Hammill, 1997)*, and the *Comprehensive Assessment of Spoken Language (CASL; Carrow-Woolfolk, 1999)*. Nonverbal intelligence tests included the *Wechsler Intelligence Scale for Children: Third Edition (WISC-III; Wechsler, 1991)*, the *Kaufman Assessment Battery for Children (KABC; Kaufman & Kaufman, 1983)* the *Leiter-Revised (Leiter International Performance Scale: Revised (Roid & Miller, 2002)*, the *Woodcock-Johnson Psycho-Educational Battery: Revised (Woodcock, Johnson, & Mather, 1990)*, the *Universal Nonverbal Intelligence Test (UNIT; Bracken & McCallum, 1998)*, the *Stanford Binet Intelligence Scale: Fourth Edition (SBIS-4; Thorndike, Hagen, & Sattler, 1986)*, the *Matrix Analogies Test (MAT; Naglieri, 1985)*, and the *Test of Nonverbal Intelligence, Second Edition (TONI-2; Brown,*

Sherbenou, & Johnsen, 1982). When testing was not available, the *UNIT* was administered to document intelligence. For many of these children, the *CASL* and the *CELF-5* (Wiig, Semel, & Secord, 2013) were also administered to provide an additional measure of language. In addition to language and nonverbal intelligence testing, each child also passed a hearing screening conducted by school personnel.

Typically Developing Children

Once participants with DLD were identified, children with typical language skills were selected. One hundred and nine typical children participated in the study, 62 males and 47 females. The ages of the children ranged from 5;3 to 12;1 (years; months). The children were categorized into two groups according to age. The younger group ranged in age from 5;3 to 8;11 (males: $M = 7;6$ $SD = 0;8$, females: $M = 7;3$ $SD = 1;2$) and the older group ranged in age from 9;1 to 12;1 (males: $M = 10;7$ $SD = 0;9$, females: $M = 10;4$ $SD = 0;8$).

Children in the typically developing group were enrolled in the same classroom as the child with DLD, were the same gender as the child with DLD, and were within 7 months in age as the child with DLD. Judgment of typical development was based on academic performance and no history of enrollment in special services, hearing within normal limits, and teacher report.

Instrumentation

The Teacher Behavior Rating Scale (Hart & Robinson, 1996) was used to assess shy behavior in the children studied. The TBRS is a questionnaire that uses a rating scale format consisting of subscales to measure different types of social behaviors such as aggression, withdrawal, and sociability. The relevant psychometric properties of the TBRS for elementary-age students were reported in Fujiki et al. (1999) and are summarized as follows. Teachers completed questionnaires for 382 students between the ages of 6;4 and 12;6 years. The mean age

of the participants was 8;10 years $SD = 1.6$ years. In order to assess construct validity, a confirmatory factor analysis was used. Four of the items on the questionnaire were loaded onto a factor analysis that was considered to reflect the construct of reticence. Those four items were used in this study. “Analysis produced three reliable factors for withdrawal with eigenvalues greater than 1, accounting for 55% of the variance” (Fujiki et al., 1999, p. 186). Of these three factors, the reticence factor was used in the present study. Test-retest reliability was measured with teachers re-evaluating 94 of the children at a one-month interval. Using Pearson correlations between the two assessment points, all subscales of social withdrawal were determined to be temporally reliable, with reticence receiving a value of .70.

For the current study, a revised version of the reticence subscale of the TBRS was used to assess shyness. Teachers were instructed to rate each child’s present behavior in comparison to other children in the same age group. Teacher ratings of reticence were then examined. The reticence subscale assessed the child’s desire to interact with others and the child’s behavior when around others. There were five items on the subscale assessing reticence:

- Stares at other children without interacting with them
- Reserved around other children
- Unoccupied even when there is plenty to do
- Fearful when approaching other children
- Off task and preoccupied.

As noted, the last item listed above, “off task and preoccupied,” was added to the current study as research has demonstrated this item is revealing when assessing reticence (C. Hart, personal communication, Dec 12, 2017). Even though this item has been included on the TBRS, it was not included on the reticence subscale in past studies.

Procedure

The classroom teachers for each of the children completed the TBRS. Teachers rated the items on a three-point scale (0 = child never displays this behavior, 1 = child sometimes displays this behavior, 2 = child very often displays this behavior). The scores for each of the items were combined and averaged to obtain a mean reticence score. In order to allow the teachers the opportunity to observe the children's behavior, questionnaires were completed at least two months into the school year. Teachers were instructed to consider the child's behavior in relation to the behavior of other children of the same age. Teachers were then asked to determine the frequency each of the behaviors in question were displayed. When unsure of an item, teachers were told to use their best judgment based on the child's personality.

Statistical Analysis

Once scores were obtained from TBRS forms, the reticent behaviors of children with DLD and their typical peers were analyzed and compared using a univariate analysis of variance (ANOVA). Three factors were compared: group, age, and gender.

Results

Scores from individual items of the TBRS reticence scale were averaged for each child to produce a mean score. The mean scores for children in the group with DLD and the typical group were then used in the analysis. The overall mean scores on the revised TBRS reticence scale for children with DLD and their typical peers is reported in Table 1. A three-way ANOVA was used to determine if there were significant differences related to group, age, and gender on reticence withdrawal. Significance was determined at the .05 alpha level. Results revealed a univariate main effect for group, $F(1, 212) = 15.363, p = .000, \eta^2 = .332$. Other main effects or interaction effects between gender and age were not significant.

Table 1

Teacher Ratings of Reticence Behavior on the TBRS

Group	Gender	Age	Mean	Standard- Deviation
Typical	Male	Younger	.23	.24
		Older	.20	.26
		Total	.21	.25
	Female	Younger	.19	.23
		Older	.25	.33
		Total	.21	.28
DLD	Male	Younger	.78	.45
		Older	.87	.46
		Total	.82	.46
	Female	Younger	.56	.44
		Older	.78	.53
		Total	.67	.49

Results indicated that teachers using the revised set of items rated children with DLD as displaying significantly more reticent behavior than their typically developing peers. The measure of effect size indicated that this difference explained approximately 33% of the variance. The difference between children with DLD and their typical peers was the only significant difference found. The groups did not differ significantly in reticence when comparing

males and females or younger and older children. Additionally, interaction effects between the three variables were not significant.

Discussion

The purpose of this study was to investigate shyness in children with DLD and their typically developing peers, and to determine if group membership, age, and/or gender contributed to the level of shyness displayed. A revised version of the reticence subscale of the TBRS was used to measure shyness. The revised subscale gave a more precise measure of reticence than had been obtained in previous studies.

Influence of DLD

Teachers rated children with DLD as displaying significantly higher levels of reticence than typical children using a revised version of the TBRS. The findings of this study confirm findings of previous studies (Fujiki et al., 1999; Hart et al., 2004) that children with DLD exhibit increased levels of reticence compared to typical peers. Reticence in the current study was identified by the following behaviors: staring at others without interacting with them, being reserved around other children, being unoccupied even when there is plenty to do, being fearful when approaching others, and being off task and preoccupied. This revised set of items, particularly the item “off task and preoccupied,” provided a more precise measurement of reticence than that obtained in previous studies examining shyness in DLD (C. Hart, personal communication, Dec. 12, 2017).

Shyness is of particular concern in children with DLD because of the negative implications associated with shyness in typical children. Rubin and colleagues (2009) outlined various negative outcomes associated with shyness: shy children experience increased peer neglect, rejection, and victimization. These children are also at an increased risk to experience

depression that begins in early childhood and lasts through adolescence, and shy children have an increased tendency to blame failed social interactions on internal rather than external factors. In addition, shy children are perceived to be less academically competent than typical peers and tend to score lower on standardized tests of expressive language (Rubin et al., 2009).

Recognizing that children with DLD are likely to experience high levels of shyness, clinicians should consider working with children with DLD in ways that simultaneously address both communication and social interactional skills. Clinicians need to help these children break the negative behavior of withdrawing from interactions by creating environments where these children can experience successful interactions with peers as they also address communication needs. To do so, clinicians can establish mediated interactions, such as facilitated play between the child with DLD and a typical peer. Clinicians will also need to educate parents about effective strategies that will help reduce social anxiety in their children (Rubin et al., 2009).

Influence of Age

There are indications that some types of withdrawn behavior increase with age. For example, Asendorpf (1991) found that levels of solitary-passive withdrawal increased in inhibited children from age 4 to age 8 years. These findings indicate that there is potential for older children to experience increased levels of social withdrawal. However, no significant differences were found in the current study based on child age using a revised version of the reticence subscale of the TBRS. These results are consistent with other studies examining children with language problems. Neither Fujiki et al. (1999) nor Hart et al. (2004) found age related differences in reticent behavior. These results would suggest that shyness does not increase with age in children with DLD. However, given the high levels of shyness observed

overall, the fact that this behavior does not increase with age is not necessarily a cause for optimism.

It has been speculated that unsociable behaviors and shy behaviors merge as children age. This observation could not be examined in the current study, which only focused on shy behavior. It might be possible in future work to examine both subtypes of withdrawal to obtain some indication of whether or not this merging of behavior takes place as children with DLD mature.

Influence of Gender

A number of researchers have found gender effects in the study of withdrawal in typically developing children. For example, Doey et al. (2013) reported males and females differed in levels of behavioral inhibition in later childhood, with females demonstrating higher levels of behavioral inhibition and social anxiety than males. On self-ratings of shyness, females reported higher levels of shyness than males. At the same time, shy males demonstrated higher levels of anxiety, depression, and rejection than shy females, and tended to marry and start stable careers later than their non-shy peers. These findings suggest that males and females experience varying levels of social withdrawal and that the consequences of shyness can vary with gender. Given these findings, a difference in the levels of reticence displayed between males and females with DLD was plausible and could have important implications. In fact, such differences have been previously reported. For example, Fujiki et al. (1999) found that males with DLD displayed higher levels of certain forms of social withdrawal than females with language problems.

In the current study, gender differences were not observed. However, even though gender differences were not found, it is important for clinicians to understand the implications associated with gender and shyness. As shyness is more socially appropriate in females than

males (Doey et al., 2013), clinicians may be more inclined to identify males with serious levels of shyness and dismissing shyness in females as culturally appropriate. Clinicians must consider this bias and view these behaviors as serious in both males and females with DLD.

Limitations

Even though this study confirms findings of studies performed by Fujiki et al. (1999), Hart et al. (2004), and others, caution must be used when interpreting the results. One limitation of the current study is the reliance on the TBRS. While this teacher behavior rating scale has evidence of validity and reliability (Fujiki et al., 1999), it has not been normed and standardized. Using a standardized assessment, norm-referenced assessment of withdrawal, such as the Child's Behavior Checklist (Achenbach, 1991), may have resulted in different findings. However, it should be noted that most standardized, norm-referenced measures do not separate social withdrawal into subtypes of behavior. Thus, these measures provide general estimates of withdrawal, but do not focus on subtypes such as reticence or unsociable behavior.

Another potential related limitation of the current study is the use of a rating scale as the primary instrument for data collection. There are both advantages and disadvantages to using this particular type of assessment (Merrell, 2003). Rating scales take advantage of observations made over a period of time in a naturalistic context. These measures also enable researchers to collect data on subjects who may not be able to provide information about themselves. However, rating scales also have their limitations. Various types of examiner bias may influence ratings. Additionally, rating scales assess the perception of the problem and are not a direct observation of the problem (see Merrell, 2003 for a comprehensive review).

Another limitation of the current study is the number of variables considered, which included group, age, and gender. Other factors such as level of parental education or

socioeconomic status were not considered. Socioeconomic status in particular has been shown to influence socioemotional status. For example, Beitchman, Brownlie, and Wilson (1996) examined psychiatric problems in relation to socioeconomic status. Socioeconomic status was a strong predictor of overall psychopathology in children with speech and language difficulties. The current study only generally controlled for socioeconomic status using census data reporting poverty status related to location. Had this been more carefully controlled, results may have differed. Familial variables, such as maternal adversity, were also not controlled in the study. Mothers with high ratings of depression, anxiety, and marital discord have been shown to report higher behavioral problems in their children as compared to mothers with lower levels of discord (Beitchman et al., 1996). Controlling for familial variables may have impacted the results.

Implications

The findings from the current study are important because of the negative implications associated with shyness, which include problems such as peer rejection, anxiety, and depression (Rubin et al., 2010). These findings are also important because shyness interferes with social interaction and social interaction is integral to child development (Rubin & Asendorpf, 1993). Social interaction influences a child's ability to take different perspectives, think about the self in relation to peers, and develop respect for others (Rubin et al., 2009). Social interaction is also critical in the child's development of social thinking and in the overall growth and development of the child (Rubin & Asendorpf, 1993).

The results of this study confirm the findings of previous work, further emphasizing that children with DLD experience problems that extend beyond their obvious language difficulties—they struggle socially and often withdraw from social exchanges. Children with DLD have significantly higher levels of shyness than typical children. This suggests that many children with

DLD have a desire to interact with others but are too afraid to do so. Because of this shyness, children with DLD may experience fewer social interactions with peers than would be ideal. Social interaction is critical to child development and to the development of mature social skills. With the higher rate of shyness, children with DLD are also prone to other problems including poor academic competence in early and late childhood (Masten et al., 1985), loneliness, depression, victimization (Rubin et al., 2009), and peer rejection (Hart et al., 2000). Because social interaction is important in child development, it is imperative to address social deficits when working with children with DLD. Doing so will not only enhance the language and communication skills in children with DLD, but also it will help these children develop socially to avoid the negative repercussions associated with shyness.

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APPENDIX A

Annotated Bibliography

Asendorpf, J. B. (1991). Development of Inhibited Children's Coping with Unfamiliarity. *Child Development, 62*, 1460-1474. doi:10.2307/1130819

Purpose

This study longitudinally examined the relationship between a child's inherent tendency towards inhibition and social withdrawal. The authors focused on solitary-passive, solitary-active, and inhibited behavior. The frequency and quality of parallel play as well as social interactions were studied to determine different ways children cope with unfamiliarity.

Method

Eighty-seven children participated in the study, 46 boys and 41 girls. These children completed three dyadic play sessions with an unfamiliar peer at the ages of 4, 6, and 8. Children were randomly assigned a same-gender playmate they did not know. The children's behavior was then videotaped and coded for social participation and cognitive quality. Each child's caregiver completed a questionnaire related to the child's dispositional inhibition toward unfamiliar people.

Results

Inhibited behavior and adult orientation decreased linearly as age increased, while social interactional behavior increased linearly as age increased. The correlation between inhibited behavior and solitary-passive withdrawal was determined to significantly increase from ages 4 and 8. The power of inhibition to predict solitary-passive withdrawal increased as age increased and became less predictive of parallel play as age increased. Parent measures of inhibition were similar in findings regarding inhibited behavior from all three play sessions. Inhibited children displayed greater amounts of inhibited behavior and solitary-passive activity as well as less social interaction. There was not a significant difference between inhibited and noninhibited children in relation to parallel play and solitary-active play. Inhibited children also displayed increasing amounts of passive behavior as age increased while typical children experienced greater amounts of social behavior.

Conclusions

Inhibited behavior and dispositional inhibition were unrelated to active solitude. Observed inhibited behavior and parent reports of dispositional inhibition were increasingly associated with passive solitude. Inhibited children were more likely to retreat from social behavior to inhibited behavior, did not display the normal preference for moving from solitary to social behavior during free play with an unfamiliar peer, and were less likely to move from inhibited behavior to social behavior. As age increased, inhibited children engaged in longer periods of solitary-passive activity. It can be predicted that children who resort to solitary-passive behavior in the presence of familiar

and unfamiliar peers are at risk for internalizing problems later in life. Inhibited children who try to engage in social interactions are not exposed to this same risk.

Beitchman, J. H., Brownlie, E. B., & Wilson. B. (1996). Linguistic impairment to psychiatric disorder: Pathways to outcome. In J. H. Beitchman, N. Cohen, M. M. Konstantareas, & R. Tannock (Eds.), *Language, learning, and behavior disorders: Developmental, biological, and clinical perspectives* (pp. 493-514). New York, New York: Cambridge University Press.

Purpose

The literature has identified a high level of psychiatric disorders in children with language impairment (LI). Because of this link, several questions concerning the cause and effect relationship between psychiatric disorders and LI arise. Beitchman and colleagues investigate the relationship through four hypotheses:

1. LI may cause psychiatric disorders due to the negative effects it has on peer relations.
2. Because children with LI have an increased risk for learning disabilities, children with LI may develop psychiatric problems as a result.
3. Additional variables such as socioeconomic status and marital discord of parents may contribute to the association.
4. Neurodevelopmental deficits, an overall lag in cognitive maturity, may contribute to the association.

Method

Researchers examined data from the Ottawa Longitudinal Study. One hundred and forty-two children determined to have LI were selected for the study at the age of five (Time 1). The control group consisted of 142 children that were matched for age and sex. Parent, teacher, and self-reported rating scales were used including: the Achenbach's Child Behavior Checklist, the Conners' Teacher Rating Scale, and the Children's Self-Report Questionnaire. Speech and language profiles of the children were broken into four groups: high overall, low overall, poor comprehension, and poor articulation. Two hundred forty-four children from the original study participated in a second study when the average age of the children was 12;6 years old (Time 2). Interviews and rating scales were completed for each of the children.

Results

Children with LI were rated by their mothers, teachers, psychiatrists, and themselves as having significantly higher levels of psychiatric problems and lower levels of adjustment. Those in the low overall group at age 5 demonstrated increased emotional and externalizing disorders at follow-up. Children in the poor auditory comprehension group demonstrated increased teacher ratings of hyperactivity. Boys in this group demonstrated higher rates of aggression than boys in the other speech and language groups. Males from both the poor comprehension and low overall groups scored lower on mother ratings of social competence, indicating higher difficulties in peer relationships. Of children who did not have a psychiatric disorder at Time 1 who developed such a disorder at Time 2, 57.1% displayed learning disabilities specifically with reading compared with 14.8% of

children without a history of psychiatric problems at either Time 1 or Time 2. Mother adversity measures including marital discord, depression, and anxiety were determined to be significant predictors of the child's emotional state across Time 1 and Time 2. Mothers with higher adversity measures had children who experienced greater emotional distress. Males at Time 1 with LI who were classified as hyperactive had higher levels of immaturity at Time 2 compared with other males.

Conclusions

Based on data gathered from the Ottawa Longitudinal Study, speech and language impairment was determined to be a predicting variable in psychiatric status. Children with LI demonstrated higher ratings of psychiatric problems and lower ratings of overall functioning at Time 2. The children with LI had lower scores on adaptive functioning and social competence, suggesting these skills impact the relationship of LI and psychiatric problems. Additional familial factors and school performance were determined to be predictive of psychiatric problems. Further research is needed to better understand the relationship between LI and psychiatric problems and other contributing variables.

Botting, N., & Conti-Ramsden, G. (2008). The role of language, social cognition, and social skill in the functional social outcomes of young adolescents with and without a history of SLI. *British Journal of Developmental Psychology*, 26, 281-300.
doi:10.1348/026151007x235891

Purpose

The purpose of this study was to examine the social outcomes of adolescents with language impairment (LI). Researchers wanted to further study how social cognition and social difficulties were related to language, social skills, and social outcomes.

Researchers posed four points of interest for the current study:

1. Determining the language, social cognition, and social skills of older adolescents with and without LI.
2. Determining if social outcomes differ between adolescents with LI and their typical peers.
3. Determining the role of language, social cognition, and social skills in the social outcomes in adolescents with LI.
4. Determining what predicts poor social outcomes in adolescents with LI.

Method

A group of 134 adolescents with a history of LI and a group of 124 typically developing adolescents participated in the study. Information for the group with LI was collected at 7 years of age and again at 16 years of age. Data for the typical group were collected between the ages of 15;2 (years; months) and 16;7. Two tasks were used to gather data in the study: the child version of the revised eyes task to identify emotion, and the strange stories task to identify understanding of socio-cognitive understanding. The strengths and difficulties questionnaire (SDQ) was used to assess social competence. Participants also completed both friendship and social activities scales to obtain self-perceptions of social outcomes.

Results

Both nonverbal IQ and language scores were lower for those with a history of LI than for those of typical development. Adolescents with a history of LI also scored lower on the eyes task and the strange stories task. Results from the questionnaire revealed that adolescents with LI were rated with more emotional and behavioral difficulties than their typical peers. A significant difference between the groups on the friendship scale was found, with the typical group scoring more favorably than the group with LI.

Conclusions

When examining persistent language deficits, early language ability predicted some, but not all, social outcomes. The study supports other research demonstrating that children with LI are at risk socially. Social skills were found to be the most reliable predictor of social outcomes in both groups; however, there was not a strong relationship between social skills and language in either group. It can be concluded that it is important to target social cognition and social skills in addition to language in those with LI.

Brinton, B., & Fujiki, M. (1993). Language, social skills, and socioemotional behavior. *Language, Speech and Hearing Services in Schools, 24*, 194-198. doi:10.1044/0161-1461.2404.194

Purpose

Brinton and Fujiki explain the importance of considering language impairment (LI) in relation to social communication and social competence. The authors review three topics: the influence of LI on a child's ability to interact, the relationship between language skills and problem behaviors, and the relationship between impairments in both communicative and psychiatric realms. Early research conducted in this area concludes language abilities influence interactions with others. Children with LI experience less social interaction with peers than their typically developing peers, presenting researchers with the unanswered question: does a lack of social interaction lead to a lack of language exposure, further exacerbating language problems? In regard to challenging behavior, the authors suggest that certain problem behaviors and language behaviors are related in these children, similar to relationships seen in populations with more severe impairments. A high co-occurrence of psychiatric problems and LI exist. Various researchers have reported that children with LI often exhibit challenging socioemotional behavior. Further research needs to be conducted to better understand these relationships.

Brinton, B., & Fujiki, M. (2005). Social competence in children with language impairment: Making connections. *Seminars in Speech and Language, 26*, 151-159. doi:10.1055/s-2005-917120

Purpose

This article examines two children with language impairment (LI). Joseph, a fourteen-year old with LI, and Cari, a six-year old with Asperger syndrome, both of whom struggle to form meaningful relationships. Children with LI may display reticent behavior

relatively early in life—these children have a desire to interact but are afraid to do so. Common interactional features of these children include less talking, rambling, and/or being unresponsive to communication partners. Children with LI have a difficult time making friends and frequently report loneliness at school. These social difficulties can lead these children to develop negative self-esteem as they grow older. It is difficult to determine if language problems result in social problems, if social problems result in language problems, or a combination of both. Brinton and Fujiki believe this relationship is best explained by the interconnection of language and social skills as well as other factors. Two factors are mentioned: emotion regulation and emotion understanding. Children with LI have a harder time regulating their emotions based on different social situations. They also struggle to identify complex emotions and have a difficult time inferring how a person would feel given a specific situation. It is important to target both language and social communication in treatment of these individuals.

Brinton, B., Fujiki, M., Hurst, N. Q., Jones, E. R., & Spackman, M. P. (2015). The ability of children with language impairment to dissemble emotions in hypothetical scenarios and natural situations. *Language, Speech, and Hearing Services in Schools, 46*, 325-336. doi:10.1044/2015_LSHSS-14-0096

Purpose

The purpose of this study was to examine the ability of children with language impairment (LI) to dissemble emotions in both hypothetical and real-life situations.

Method

Twenty-two children with LI and their age-matched peers participated in the study. The children in the study were between the ages of 7;1 and 10;11 [years; months]. Each of the children were presented with a hypothetical situation in which dissembling would have been socially appropriate. Then, each of the children were presented with four real opportunities in which to dissemble. In the naturalistic context the children were presented with both (a) low cost scenarios in which the child did not have anything to lose by dissembling his/her emotions, and (b) high cost scenarios in which the child did have something to lose by dissembling (e.g., a desired prize).

Results

In the hypothetical situation, typical children judged that dissemblance was the socially appropriate option significantly more often than children with LI. There was not a difference between the two groups of children when they were presented with natural, low-cost situations. When the situation was real and high-cost, typical children dissembled more than children with LI. This difference neared statistical significance.

Conclusions

In the hypothetical context, children with typical language skills selected dissembling emotions significantly more often than children with LI. In the naturalistic context both groups dissembled at roughly the same rate in natural, low-cost settings. Children with LI dissembled much less than their typical peers when presented with a hypothetical

situation or when in a natural, high-cost situation. This difference represented a trend, but did not reach statistical significance.

Conti-Ramsden, G., & Botting, N. (2004). Social difficulties and victimization in children with SLI at 11 years of age. *Journal of Speech Language and Hearing Research, 47*, 145-161. doi:10.1044/1092-4388(2004/013)

Purpose

The purpose of the study was to examine the impact of specific language impairment (SLI) on social and behavioral outcomes in a group of children followed longitudinally for four years. Researchers wanted to determine if social difficulties were a product of poor communication skills or if such difficulties were an inherent feature of SLI. Conti-Ramsden and Botting outlined the three-fold purpose of the study:

1. To examine both social and behavioral problems present in children with SLI at 11 years of age.
2. To examine the developmental patterns of both social and behavioral difficulties.
3. To discover the presence of any relationships between social difficulties and language ability and any relationships between social difficulties and nonverbal cognition.

Method

Two-hundred-and-forty-two children participated in the study. Each of these children had been attending specialized language classes when they were selected to participate in the study at 7 years of age. Of the original 242 participants, 200 participants completed the longitudinal study at a mean age of 10;11 (years; months). Researchers referenced previous data collected when the children were 8 years old. At age 11, data were collected through teacher questionnaires and self-reports. Social and behavioral functioning were measured using the Rutter Behavioral Questionnaire, the Peer Competence Subscale, the Strengths and Difficulties Questionnaire (SDQ), "My Life in School" (MLIS) Questionnaire, and the Children's Communication Checklist (CCC). General intelligence was measured using the Wechsler Intelligence Scale for Children. Language was assessed through the Expressive Vocabulary Test, The British Picture Vocabulary Scale II, The Past Tense Task, and the TROG.

Results

Researchers determined that 102 of the 160 children with language problems experienced social and behavioral problems at age 11. The Rutter behavioral questionnaire significantly increased across the different points of testing. The scores on the Harter Peer Competence subscale, completed at ages 8 and 11 years of age, were not statistically different. The initially strong correlation between the Harter and Rutter scales decreased by age 11. Children rated their conduct problems (based on SDQ scores) higher than teachers rated these problems. When examining hyperactivity scores from the SDQ, children were less likely to score themselves above the threshold than their teachers, but were not statistically different from the normative sample. Sixteen percent of children were rated by their teachers as having emotional difficulties; however, 30% of the children scored themselves higher. Again, the percentages were not higher than expected.

Withdrawal and peer difficulties were grouped together when analyzing internalizing problems. Teacher reports from the Harter scale found that close to 40% of the children were scored by teachers on the Harter as not having many friends, found it hard to make friends, and/or were not popular. Forty-four percent of children were scored as having other social difficulties such as not being considerate of the feelings of others. Thirty-two percent were scored as having problems such as fighting with others and the tendency to be solitary. Thirty-six percent of children were determined to be at risk of being bullied at school by the MLIS victimization index. There were no statistically significant relationships between the Rutter, SDQ, Harter, or MLIS victimization index measures and gender, low socioeconomic status, and poor maternal education. These tests also did not show a significant association with nonverbal IQ scores and MLIS victimization scores. The different language aspects were not significantly associated with any of the social or behavioral measures, with only a weak association of the MLIS victimization index and expressive language measures. The CCC scores were found to be associated with social and behavioral problems. Further study determined children with poor pragmatic skills scored higher on the Rutter and the SDQ, indicating more social and behavioral problems.

Conclusions

The most prevalent problem identified in the study was internalization of social difficulties. Children with SLI experienced higher levels of bullying. This study replicated past research in determining that many children with SLI experience social and behavioral problems as they approach high school age. Researchers were unable to determine if children with SLI experienced withdrawal due to poor language skills or from other factors. Instead, the results of the study indicate there may be many potential factors that contribute to the withdrawal experienced by children with SLI.

Coplan, R. J., Arbeau, K. A., & Armer, M. (2008). Don't fret, be supportive! Maternal characteristics linking child shyness to psychosocial and school adjustment in kindergarten. *Journal of Abnormal Child Psychology*, 36, 359–371. doi:10.1007/s10802-007-9183-7

Purpose

Shyness, characterized by an approach-avoidance conflict, has been linked to a number of problems related to social, emotional, and adjustment difficulties. Previous researchers have investigated different risk factors and different protective factors that may influence the lives of shy children. The purpose of this study was to examine the moderating role between maternal personality and parenting characteristics on shyness and adjustment of children in kindergarten.

Method

One-hundred-ninety-seven children in kindergarten participated in the study. During the kindergarten school year, researchers collected data at three different times. Different assessments were used to gather information. Mothers rated their own personality and parenting styles as well as their child's shyness at the first data collection point. The second time data were collected, observations of the children's reticent behavior at school

was obtained and teachers rated children's shy-reticent behavior evident at school. The third collection point, parent-ratings, teacher-ratings, and child interviews were collected to assess the children's socio-emotional and school adjustment.

Results

No significant correlations were discovered between parental education and child shyness. Child shyness was found to be positively linked with internalizing problems and peer difficulties and was negatively linked to school adjustment. Higher levels of fretful parenting were linked with higher levels of internalizing problems and social dissatisfaction. Lower levels of warm/supportive parenting were associated with internalizing problems, peer difficulties, and school adjustment problems. There were no significant interactions between shy and maternal uninhibited parenting when predicting the child's adjustment. Analysis was performed to determine the moderating role of parenting in relation to child shyness and adjustment. Fretful parenting was not significantly linked with child internalizing problems or social dissatisfaction at lower levels of child shyness. When child shyness increased, fretful parenting was increasingly associated with child internalizing problems and social dissatisfaction. When examining supportive parenting and child shyness, supportive parenting was not associated with child internalizing problems or peer difficulties when the child displayed lower levels of shyness. As child shyness increased, supportive parenting was negatively linked with such negative outcomes. At lower levels of shyness, supportive parenting was negatively related to school adjustment. This relationship was nonsignificant as child shyness increased.

Conclusions

Results from the study indicated that shyness was associated with both socio-emotional difficulties and school adjustment difficulties. Children whose mothers exhibited higher levels of neuroticism, behavioral inhibition system sensitivity, and an overprotective parenting style had higher levels of shyness and certain maladjustment problems. Such problems were not as strong in children whose mothers exhibited high levels of agreeableness and an authoritative parenting style. Results from the study indicate fretful parenting exacerbates shyness and adjustment. Uninhibited parenting was not found to moderate shyness and adjustment. More research is needed to understand the relationship between the fathers' personality and parenting style on child shyness.

Coplan, R. J., Prakash, K., Oneil, K., & Armer, M. (2004). Do you "want" to play? Distinguishing between conflicted shyness and social disinterest in early childhood. *Developmental Psychology, 40*, 244-258. doi:10.1037/0012-1649.40.2.244

Purpose

The purpose of this study was to examine and better distinguish between two internal factors that result in a lack of interaction in early childhood. These internal factors are conflicted shyness and social disinterest. Conflicted shyness is evident when children want to interact but are too afraid to do so. Social disinterest is evident when children lack a desire to interact with others.

Method

Preschool-age children in and around Ottawa, Canada participated in the study. One hundred nineteen children participated in Sample 1 and 127 children participated in Sample 2. Parents in both samples completed the Child Social Preference Scale to measure conflicted shyness and social disinterest. To measure temperament, parents in Sample 1 completed the Colorado Child Temperament Inventory. Researchers observed children in Sample 1 during free play periods in which play behavior was documented. Teachers completed the Child Behavior Scale for children in Sample 1 to assess peer adjustment. Parents in Sample 2 completed a questionnaire to determine parenting style, the Parenting Styles and Dimensions Questionnaire. To assess the importance parents put on the children's social life and peer interactions, parents in Sample 2 completed the Revised Social Goals Inventory. Children in Sample 2 were interviewed and completed the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children. This was completed to assess how the children perceived their social competence.

Results

No significant associations between child age or parental education and the measures of conflicted shyness and social disinterest were found in in Samples 1 and 2. Children who reported a preference to playing with peers and those who liked to play alone or with a teacher did not differ in conflicted shyness; however, there was a significant effect when examining social disinterest. Higher ratings of social disinterest existed in children who liking to play alone or with a teacher than in children who liked to play with peers. Results indicated conflicted shyness was positively related to fearful shyness and negative emotionality. Social disinterest was found to be positively related with attention span and negatively related to negative emotionality. Conflicted shyness was determined to be negatively related to perceived social competence while social disinterest was found to not be related to perceived competence. In free-play behaviors, conflicted shyness was positively related to reticent behavior and parallel play and negatively related to initiating social interactions. High rates of social disinterest were found in children who initiated fewer social interactions with peers. Conflicted shyness was found to be positively related to anxiety and asocial behavior with peers and negatively related to prosocial behaviors with peers. Social disinterest was determined to be positively related with asocial peer behavior and peer exclusion and negatively related to prosocial peer behavior. Conflicted shyness was positively related to overprotective parenting in boys. Social disinterest was more evident in children whose mothers did not place as much importance on social interaction.

Conclusions

Results from this study indicate that shyness in preschoolers is noticeable and can be problematic. The results from the study support an approach-avoidance conflict model of shyness. Results also indicate shyness may put boys at greater risk than girls. Boys who displayed shy behaviors were more likely to be excluded by peers than girls with shy behaviors. Further research is needed to understand the relation between shyness and peer rejection in early childhood. Gender should be taken into consideration when conducting research in this area. Associations between parenting styles and shyness and social disinterest were evident, with maternal overprotectiveness and shyness, being particularly

evident in boys. Children who were deemed unsociable were seen by teachers to be more withdrawn but not more anxious. The current study did not find a correlation between solitary-passive play and social disinterest. The current study also found children who were disinterested socially had higher teacher ratings of peer exclusion. Further study needs to be conducted to determine how unsociable children are differentiated from peers.

Coplan, R. J., Rubin, K. H., Fox, N. A., Calkins, S. D., Stewart, S. L. (1994). Being alone, playing alone, and acting alone: Distinguishing among reticence and passive and active solitude in young children. *Child Development*, 65, 129-137. doi:10.1111/j.1467-8624.1994.tb00739.x

Purpose

The purpose of this study was to examine withdrawn behavior of young children interacting in groups of four. The types of withdrawal that were examined were solitary active withdrawal, solitary passive withdrawal, and reticence. These types of withdrawal were also examined in relation to indicators such as anxiety, impulsivity, and wariness.

Method

Forty-eight children, four years of age, participated in the study. The children were separated into groups of four children, each the same sex and each child unfamiliar with the others. The children were then observed during the following five settings: a.) free play b.) clean-up c.) show-and-tell d.) a ticket-sorting activity, and e.) another round of unstructured free play. The behavior of each child was then coded for each of the interactions. Each child's mother completed the Colorado Temperament Inventory.

Results

Reticence was stable across the interactions and was linked with anxiety and hovering near others. Solitary-passive and solitary-active withdrawal were stable but were not linked to anxiety and hovering behaviors. In free play, reticence was associated with poor performance and wariness. Reticence was associated with maternal ratings of shyness, while solitary-active withdrawal was associated with maternal ratings of impulsivity.

Conclusions

Children who exhibited anxious behaviors were more likely to display reticent behaviors. Reticent behavior was also displayed throughout the different interactions and was stable in nature. Reticent children also frequently displayed the behavior of hovering next to peers, but not participating in the interaction. This behavior can be characterized as representing an approach-avoidance conflict. Further research regarding the relationship of reticence and solitary-passive withdrawal needs to be conducted. Solitary-active play was stable throughout the different interactions but was not frequently observed.

Coplan, R. J., Rose-Krasnor, L., Weeks, M., Kingsbury, A., Kingsbury, M., & Bullock, A. (2013). Alone is a crowd: Social motivations, social withdrawal, and socioemotional functioning in later childhood. *Developmental Psychology, 49*, 861-875. doi:10.1037/a0028861

Purpose

This study was designed to test a model linking social approach and avoidance motivations, socially withdrawn behaviors, and peer difficulties in later childhood. The researchers also compared the socioemotional behaviors of different subtypes of withdrawn children. Subtypes included shy, unsociable, and avoidant. Shy children are characterized as having high social approach and high social avoidance motivations, reflecting a desire to interact but are too afraid to do so. Unsociable children have both low social approach and low social avoidance motivations, reflecting a preference for solitude. Socially avoidant children have low social approach and high social avoidance motivations, reflecting a preference to be alone as well as a desire to avoid social interactions.

Method

Participants were 367 children between the age of 9 and 12 in the Ontario, Canada area. Different measures assessed social motivations, social withdrawal, peer difficulties, and internalizing problems. Data collection occurred over a 6-month period. Child shyness and social avoidance motivations was assessed through the Children's Shyness Questionnaire. Child preference for solitude and social approach motivations was assessed through the Child Social Preference Questionnaire. A version of the Play Observation Scale was used to assess socially withdrawn behaviors. Child socioemotional functioning information was collected through the Positive and Negative Affect scale for Children, the Social Anxiety Scale for Children Revised, the Children's Attributional Style Questionnaire—Revised, the Child Depression Inventory, the Loneliness and Social Dissatisfaction Questionnaire, the Self-Report Victimization Scale, and the Self-Description Questionnaire. To assess child emotional symptoms, parents completed the Strengths and Difficulties Questionnaire.

Results

Shyness and a preference for solitude were not significantly linked with parental education or child age. Socially withdrawn behaviors were associated with shyness and a preference for playing by one's self. Shyness and the preference for solitude predicted peer difficulties. Shyness was the only variable that was linked with a direct path to peer problems. Shyness was positively related with emotional and peer problems, but not with conduct problems. Shy-conflicted and avoidant children displayed higher negative emotionality than their unsociable and typical peers. Avoidant children reported the highest level of social anxiety, followed by shy-conflicted children. As a result, avoidant children experienced the greatest social anxiety and negative affect. Unsociable children and typical peers did not differ in terms of anxiety. Avoidant children also experienced the greatest levels of depression, followed again by shy-conflicted children. Again, unsociable and typical peers did not differ.

Conclusions

Socially withdrawn behaviors were linked to self-reported shyness and a preference for solitude. In later childhood, all forms of social withdrawal are negatively received by peers. Social withdrawal is a risk factor for socioemotional problems in later childhood. Shyness was directly linked to peer problems and may suggest that these problems arise for reasons other than the tendency to play alone. Different types of social withdrawal impact children differently. Shy children had significantly higher levels of negative affect, depressive symptoms, social anxiety, and a more negative attributional style. Extreme shyness is equally detrimental for boys and girls. Unsociable children did not experience the same levels of anxiety and depressive symptoms. Although they do experience peer exclusion, they do not seem to be troubled by this. The group at the greatest risk for socioemotional difficulties was the socially avoidant group, children who were both shy and unsociable. These children reported the highest level of social anxiety and depressive symptoms and had the most negative attributional style. This group of children needs further research to understand the causes.

Coplan, R. J., & Weeks, M. (2010). Unsociability in middle childhood: Conceptualization, assessment, and associations with socioemotional functioning. *Merrill-Palmer Quarterly*, 56, 105-130. doi: 10.1353/mpq.0.0043

Purpose

The purpose of this study was to compare the socioemotional adjustment of unsociable children and shy children in middle childhood. The study also explored the differences in gender to see if there was a correlation between gender and behavior.

Method

One-hundred-sixty-eight children from Ottawa, CA in the first and second grade participated in the study, with 89 boys and 97 girls. Different assessments were used to collect data: maternal ratings, teacher ratings, and child interviews. The Child Social Preference Scale (CSPS) was used to provide the maternal rating of shyness and the Colorado Child Temperament Inventory (CCTI) provided the maternal rating of temperament. To rate the parents' importance of child sociability, mothers completed a modified Social Goals Inventory (SGI). At the end of the year, mothers completed the Strengths and Difficulties Questionnaire (SDQ) to assess psychological adjustment and behavior. Data were collected at two times: initially at the beginning of the school year and then at the end of the school year. Teachers used the Child Behavior Scale (CBS) to assess the children's adjustment with peers. Children themselves participated in an interview and completed the Loneliness and Social Dissatisfaction Questionnaire and the School Liking and Avoidance Scale.

Results

At the beginning of the school year, the maternal ratings of shyness and unsociability were fairly stable. There were no correlations between parental education and maternal-rated shyness or unsociability. Results indicated a distinct difference between shy children and unsociable children. Shy children internalized problems more often,

experienced peer difficulties, and had greater levels of loneliness when compared to unsociable and non-withdrawn children. Unsociable children only differed from their typical counterparts in the amount of time they spend playing alone. Shy children were rated as having more internalizing problems and more problems with peers. No gender differences were found in shy children when analyzing socioemotional functioning. Unsociable boys experienced more problems than unsociable girls.

Conclusions

Mothers are able to make reliable distinctions between shyness and unsociability for the age group tested. The findings also suggest that shyness and unsociability remain different constructs in middle childhood. Unsociable children were better adjusted than their shy peers. Shy children were more likely to be rejected by their peers, experience more loneliness, and like school less than unsociable and typical peers. Unsociable children experienced problems with their peers but did not have socioemotional problems. This may be because unsociable children do not place a high level of importance on social interactions and mothers of unsociable children tend to reflect this idea. But as unsociable children continue to experience the lack of peer relationships, these children may experience socioemotional problems later in life.

Coster, F., Goorhuis-Brouwer, S., Nakken, H., & Spelberg, H. L. (1999). Specific language impairments and behavioural problems. *Folia Phoniatica Et Logopaedica*, 51, 99-107. doi:10.1159/000021484

Purpose

The purpose of this study was to determine the prevalence of behavioral problems in children with language impairment age 8, 10, and 12-years-old. The nature of such behavioral problems was also examined. Researchers also wanted to determine if parent questionnaires differed from teacher questionnaires.

Method

Fifty-six children with language impairment participated in the study. Participants were from schools for children with language and hearing impairments in the north-eastern provinces of the Netherlands. Children were 8, 10, and 12 years of age. To measure the behavioral functioning of these children, parents and teachers completed the Child Behaviour Checklist.

Results

Data from questionnaires completed by parents indicated 23% of the children had behavior scores within the clinical range. Data from questionnaires completed by teachers indicated 32% of the children had behavior scores within the clinical range. Teachers rated children as having more clinical scores on total behavior whereas parents rated children as experiencing more internalizing problems. When data from both parent and teacher questionnaires were compared, almost half of the children with language impairment, 48%, were determined to have behavioral problems either at home or at school.

Conclusions

Children with language impairment demonstrated significantly more internalizing behavior problems than typical children. However, children with language impairment did not exhibit more externalizing behavior than their typical peers. The rate of agreement between parents and teachers on the behavior problems of children with language impairment was relatively low. This could be because different social contexts and partners results in different behavior problems and manifestations. Because not all children with language impairment experienced behavioral problems, the relationship between language impairments and behavioral problems is not linear.

Fujiki, M., Brinton, B., Hart, C. H., Olsen, J., & Coombs, M. (in press.) Social withdrawal in children with developmental language disorders. *Language Speech Hearing Services in School*.

Purpose

This study was conducted to examine social withdrawal in a large sample of children with developmental language disorder (DLD) and their typical peers. Researchers also wanted to analyze measurement invariance of the TBRS items to determine if teachers were rating items with the same underlying construct for children with DLD and typically developing peers.

Method

One-hundred-seventy-three children with DLD between the ages of 5 and 12 years old participated in the study. The Teacher Behavior Rating Scale (TBRS), a 3-point rating scale, was used to assess the different types of social withdrawal in the two groups. One-hundred-eighty-two typically developing children participated in the study and were between the ages of 5 and 12 years old.

Results

Three of the four reticence items and four of the five solitary passive behavior items were invariant. When non-invariant items were accounted for, teachers still consistently rated children with DLD as displaying significantly more withdrawn behaviors, not influenced by age and gender. This study demonstrated the importance of using a measurement invariance analysis with rating scales. It replicated findings that children with DLD were more withdrawn than their typical peers.

Conclusions

Different types of withdrawal have different impacts on a child's life and have different motivations. Children with DLD displayed increased social withdrawal whether it was because they were too shy to enter an interaction or were unable to motivate themselves to engage in classroom activities. When conducting research using rating scales, it is important to consider the possibility that individuals completing the form may approach some items with different constructs for typical children and children with disorders.

Fujiki, M., Brinton, B., Isaacson, T., & Summers, C. (2001). Social behaviors of children with language impairment on the playground: A pilot study. *Language, Speech, and Hearing Services in Schools, 32*, 101-113. doi:10.1044/0161-1461(2001/008)

Purpose

The purpose of this study was to examine the social behaviors of children with language impairment (LI) and their typical peers in a playground environment.

Method

Eight children with LI and eight typical children participated in the study. The typical children were matched to the children with LI according to age and gender. The sixteen children were then videotaped for 45 minutes while interacting on the playground during recess. The videos were separated into 5-second clips and analyzed according to the behavior displayed in the clip. The categories consisted of peer interaction, adult interaction, withdrawal, aggression, victimization, and other.

Results

Children with LI interacted with peers significantly less than their typical peers. Children with LI also displayed significantly more withdrawn behavior than their typical peers. Neither group displayed high levels of solitary passive withdrawal. Children with LI exhibited more reticent behavior and more solitary active withdrawal than their typical peers. While children with LI also interacted more with adults than their typical peers, the difference between the two groups was not statistically different. There also was not a statistical difference between the two groups in aggressive behaviors; however, three children with LI displayed aggressive behaviors between 1% and 2% of the time while the scores for each typical child rounded to 0%.

Conclusions

The results of this study confirmed that teacher reports, in general, are accurate representations of a child's behavior. Children with LI are at risk for social difficulties in the school setting and experience difficulties not only in the classroom, but also on the playground. Children with LI are more withdrawn than their typical peers. When they did interact with their peers, children with LI most often engaged in conversations instead of nonverbal games. Children with LI need interventions that will help them to be included in peer interactions during recess.

Fujiki, M., Brinton, B., Morgan, M., & Hart, C. H. (1999). Withdrawn and sociable behavior of children with language impairment. *Language, Speech and Hearing Services in Schools, 30*, 183-195. doi:10.1044/0161-1461.3002.183

Purpose

The purpose of this study was to determine if children with language impairment (LI) differ from typical peers in the manifestation of three subtypes of withdrawal and two subtypes of sociable behavior. The study also examined if withdrawn and sociable behaviors in the two groups were influenced by gender and age.

Method

Forty-one children with LI and 41 typically developing children participated in the study. The children with LI were each matched to a typical classmate of the same age and gender. To assess the withdrawn and sociable behaviors of each of the 82 children, teachers completed the Teacher Behavior Rating Scale (TBRS) for each child. Each teacher rated a typically developing child and a child with LI in his/her classroom.

Results

Subtypes of withdrawal included passive withdrawal, active withdrawal, and reticence. Subtypes of sociability included impulse control/likeability and prosocial. Reticence was the most common form of withdrawal exhibited by children with LI and produced the largest difference between groups, with children with language problems being much more reticent than their typical peers. There was not a difference in passive withdrawal. Solitary active withdrawal occurred infrequently in the sample, but boys with LI had higher levels of solitary active withdrawal than girls with LI and typical children of both genders. There was not a statistically significant difference between the group of typical children and the group of children with LI when analyzing solitary passive withdrawal, but boys again exhibited more passive withdrawal than girls. With respect to sociability, typical children had better impulse control and prosocial behaviors than children with LI.

Conclusions

Children with LI were more withdrawn and less sociable than typically developing children of the same age and gender. Children with LI were more likely to watch their peers play while they stood alone. The children also had weak interaction skills when they attempted to interact. Further study needs to be performed to determine the relationship of LI and social problems. Is it the language problem that causes the social withdrawal or is there another factor at play?

Fujiki, M., Spackman, M. P., Brinton, B., & Hall, A. (2004). The relationship of language and emotion regulation skills to reticence in children with specific language impairment. *Journal of Speech Language and Hearing Research, 47*, 637-646. doi:10.1044/1092-4388(2004/049)

Purpose

The purpose of this study was to evaluate the link between emotion regulation, language skills, and reticence in children with LI. The researchers wanted to determine the role emotion regulation played in the social reticence of children with LI.

Method

Forty-three children with LI and 43 typically developing children participated in the study. The children were matched for age and gender. The children's teachers completed emotion regulation, language, and reticent measures and questionnaires. To evaluate emotion regulation, the Emotion Regulation Checklist (ERC) was employed. To evaluate reticence, the Teacher Behavior Rating Scale (TBRS) was utilized. To assess language

abilities, each participant completed the Comprehensive Assessment of Spoken Language (CASL).

Results

The researchers discovered CASL scores and emotion regulation were reliable predictors of reticence, accounting for 43% of the variance. Each variable was equally powerful in predicting reticence.

Conclusions

Both a child's language capabilities and emotion regulation skills play an important role in the reticent behavior displayed by children with LI. More research needs to be done to assess how emotional regulation and competence interacts with language to create the problems experienced by children with LI.

Gazelle, H., & Ladd, G. W. (2003). Anxious solitude and peer exclusion: A diathesis-stress model of internalizing trajectories in childhood. *Child Development, 74*, 257-278.
doi:10.1111/1467-8624.00534

Purpose

Children who display anxious solitude in the early school years experience different social outcomes than those who do not display anxious solitude. Some of these children experience depressive symptoms while others do not and appear to be well adjusted. The purpose of this study was to examine a potential contributing factor to the differing outcomes. The potential factor examined in the study was peer exclusion, which is defined as being left out of the activities of peers either indirectly or directly.

Method

Data were collected from kindergarten to fourth grade, a span of five years. Teacher and peer reports were collected when participants entered kindergarten and each following spring. Participants represented the midwestern United States in terms of gender, ethnicity, and socioeconomic status. Teacher Report Forms were used to collect information regarding participants' anxious solitude. To assess peer exclusion, teachers completed the Children's Behavior Scale Profile. Peer rejection was assessed through peer sociometric nomination. Externalizing behaviors were measured by the Children's Behavior Scale. The Child Behavior Checklist Depression Scale was used to measure depressive symptoms.

Results

Anxious solitude and peer exclusion were found to co-occur in children shortly after starting kindergarten. When comparing children with anxious solitude who were not excluded to children with anxious solitude who were excluded early on, it was found that the latter group experienced greater stability in anxious solitude and experienced more depressive symptoms. Children who exhibited high levels of anxious solitude early evidenced greater exclusion when starting school. High levels of anxious solitude predicted increasing levels of peer exclusion.

Conclusions

Peer exclusion frequently occurs in kindergarten and can be a determining factor in depressive symptoms. The combined elements of anxious solitude and exclusion predicted the highest levels of depressive symptoms. Exclusion occurs early and increases over time. These findings emphasize the need for early intervention

Hart, K. I., Fujiki, M., Brinton, B., & Hart, C. H. (2004). The relationship between social behavior and severity of language impairment. *Journal of Speech Language and Hearing Research, 47*, 647-662. doi: 0.1044/1092-4388(2004/050)

Purpose

The purpose of the study was to further understand withdrawn and sociable behaviors in children with language impairment (LI). Withdrawn behaviors were studied in the forms of reticence, solitary-active, and solitary-passive withdrawal. Sociable behavior was examined in the forms of prosocial and impulse control/likeability behaviors. The researchers wanted to confirm if children with LI displayed higher levels of withdrawal and lower levels of sociability than their typical peers. The researchers also wanted to determine if the severity of LI impacted the withdrawn and sociable behaviors of the children with LI.

Method

Forty-one typical children and 41 children with LI participated in the study. Children were between the ages of 6-9 years old and 10-13 years old. Teachers completed the Teacher Behavior Rating Scale (TBRS) for each of the children. Items were rated on a 3-point scale. The TBRS was used to compare both the withdrawn behavior and the sociable behavior of children with LI and their typical peers.

Results

Children with LI were rated with higher levels of reticence and solitary-passive behaviors than their typical peers. Children with LI also had lower scores for both prosocial behaviors and impulse control/likeability behaviors than their typical peers. When separated into more severe and less severe LI, withdrawn behavior between the two groups were similar. The only difference was girls with more severe receptive language problems exhibited more solitary-passive behaviors than girls with less severe receptive language problems. The researchers found that children with less severe receptive language problems had a greater ability to exhibit sociable behavior. Children with greater language problems had poorer prosocial behavior, but did not differ from their peers with less severe LI in impulse control/likeability. There was no consistent pattern observed for solitary-active withdrawal between the two groups.

Conclusions

Overall, children with LI experienced greater social problems. They displayed increased withdrawal and lower levels of sociable behaviors. The severity of LI was found to be more linked to some sociable behaviors (prosocial) but was not linked with most withdrawn behaviors. This suggests that outgoing and friendly behaviors are limited by

LI. It is important to bear in mind that LI is not solely a problem of language; there are other problems associated with the disorder. More investigation is needed to understand the underlying cause of the social problems children with LI have as it is likely a problem stemming from different sources. Reticence may arise from problems with emotional understanding and regulation and not just be related to language.

Hart, C. H., Yang, C., Nelson, L. J., Robinson, C. C., Olsen, J. A., Nelson, D. A., . . . Wu, P. (2000). Peer acceptance in early childhood and subtypes of socially withdrawn behaviour in China, Russia, and the United States. *International Journal of Behavioral Development, 24*, 73-81. doi:10.1080/016502500383494

Purpose

The purpose of this study was to determine if teachers in mainland China, Russia, and the United States could identify withdrawal in children and examine the link between withdrawal and peer group adjustment.

Method

Six-hundred-forty-two children across mainland China, Russia, and the United States between the ages of 4 and 6 participated in the study. Two-hundred-thirteen children were from nursery schools in Beijing, 221 children were from nursery schools in Voronezh, and 208 children were from early school programs in Provo. The male to female ratio in each culture was the same. Data for the children were collected through teacher ratings and peer sociometric data. The sociometric data for each child consisted of measuring group acceptance and likeability.

Results

Teachers in the US and Russia made finer distinctions between the different subtypes of withdrawal than teachers in mainland China. Reticent behavior was linked with lower sociometric ratings and sociable behavior was linked with higher sociometric ratings across all three cultures. There was no difference between the US children and Russian children when considering the three types of withdrawal. Chinese children were rated slightly lower than US children in solitary-passive withdrawal and sociability, but there were not any other differences. No gender differences were observed between the subtypes of withdrawal and sociability.

Conclusions

Teachers in all three cultures were able to identify withdrawn behavior. Across all three cultures, reticent behavior was negatively related to peer sociometric ratings more so than were solitary-active and solitary-passive withdrawal. This difference may stem from the fact that children tend to observe and negatively view reticent behaviors more than the other behaviors. Reticent behavior was linked with peer rejection across all three cultures.

Marton, K., Abramoff, B., & Rosenzweig, S. (2005). Social cognition and language in children with specific language impairment (SLI). *Journal of Communication Disorders*, 38, 143-162. doi:10.1016/j.jcomdis.2004.06.003

Purpose

This study investigated the potential relationship between language, social pragmatics, and social self-esteem in children with language impairment (LI). Researchers wanted to examine the social cognitive skills of children with LI in order to gain a more complete understanding of their social competence. To do this, researchers collected data using hypothetical tasks, self-reports, parental reports, and teacher reports.

Method

Children between the ages of 7 and 10 participated. Nineteen children diagnosed with language impairment (LI) comprised the first group. Nineteen children with typical language development comprised the second group. Each group consisted of 10 girls and 9 boys. Different hypothetical situations were presented to participants in order to measure negotiation and conflict resolution skills as well as strategies and reactions to each situation. To measure academic and social self-esteem, 20 yes/no questions from the Culture free self-esteem inventory were presented. Parents and teachers each completed questionnaires determine social competence and behaviors.

Results

Children with LI produced more grammatical errors than typical peers. While both groups performed better in grammar than in social pragmatic understanding, children with LI did poorer in social pragmatics than the typical children. Typical children did not have a difference between academic and social self-esteem while those LI showed a significant difference between academic and social self-esteem. Parents of children with LI rated their children lower in each category than parents of typical children. It was also found that teachers rated children with LI lower in language, conversational skills, and nonverbal communication and not lower in social behavior.

Conclusions

Children with LI exhibited significantly lower social cognitive knowledge than typically developing children. Those with LI also experienced lower social self-esteem and used inappropriate strategies when negotiating and resolving conflicts. Parents of children with LI evidenced greater concern about the social competence of their children than the teachers, reflecting a lack of communication between parents and teachers regarding social problems. Findings also revealed that children with LI have greater difficulties in pragmatics, even more so than linguistic skills. The researchers also determined that children with LI used more nonverbal coping strategies such as pushing and shoving, and had a tendency to leave a problematic situation unsolved rather than resolving it. Children with LI also made remarks reflecting their difficulty recognizing the perspective of others. It is important to target social skills when providing intervention.

Merrell, K.W. (2003). *Behavioral, social, and emotional assessment of children and adolescents* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.

Merrell's work outlines various methods used in the assessment of socioemotional problems. In reference to the rating scale methodology used in this thesis in particular, Merrell provides several advantages and disadvantages for using these rating scales in research. Some advantages include but are not limited to: the ability for the rater to get to know the child over a period of time, the ability for researchers to collect information on those who may not be able to provide information about themselves, and the ability to collect information on the subject in his/her natural environment. Disadvantages include but are not limited to: the fact that rating scales rely on perceptions of behavior instead of direct measurement of behavior and examiner biases.

Redmond, S. M. & Rice, M. L. (1998). The socioemotional behaviors of children with SLI: Social adaptation or social deviance? *Journal of Speech Language and Hearing Research*, 41, 688-700. doi:10.1044/jslhr.4103.688

Purpose

The purpose of this study was to compare teacher and parent reports of children with LI and typically developing children, and to determine the stability of these measurements over time.

Method

Seventeen children with LI participated in the study along with 20 typical age-matched peers. All of the children were monolingual English speakers. Each of the children had been in the study for two years. Information regarding the socioemotional behaviors of the children were collected at about 6 years of age and then again at 7 years of age. The Child Behavior Checklist (CBCL) and the Teacher Report Form (TRF) were used to assess the children in kindergarten and then again in first grade.

Results

Children with LI and their age matched typically developing peers scored within normal limits for behavior for both the ratings on the CBCL and the TRF. Despite both groups being within normal limits, children with LI had significantly higher levels of withdrawal, social problems, attention problems, and internalizing behaviors than their typical peers as reported by teachers. Parent reports did not indicate a difference between the two groups in the mean number of friends and the amount of time spent playing with friends.

Conclusions

Teachers rated children with LI as having more problems with peer acceptance than indicated by their parents. Parents rated their children as playing in socially appropriate ways with other children. The differences between the teacher reports and the parent reports may indicate that children with LI are socially competent in some settings. The results indicated the severity of LI was not always associated with the extent to which

sociobehavioral problems were observed. There was not a lot of stability in the ratings over time when parents and teachers rated a child similarly. Data collected in second grade determined that teacher ratings of children with LI were lower than teacher ratings collected from kindergarten and first grade. Teachers reported children in the group with LI demonstrated decreased scores in peer acceptance across the three sampling periods. Teacher measures indicated teachers had fewer concerns about withdrawal, attention, and internalizing behaviors as the child progressed from kindergarten to second grade. Future researchers will need to perform more detailed research to indicate the cause-and-effect relationship of LI and socioemotional problems. The findings highlight the importance of focusing on improving language skills first with socioemotional abilities second. Another way to approach treatment would be to help teachers understand their biases towards children with LI so they can better detect the difference between maturity and language abilities.

Redmond, S. M., & Rice, M. L. (2002). Stability of behavioral ratings of children with SLI. *Journal of Speech Language and Hearing Research, 45*, 190-201.
doi:10.1044/1092-4388(2002/014)

Purpose

There is a strong relationship between language difficulties and socioemotional difficulties. There needs to be more understanding regarding LI and socioemotional difficulties. Is a language deficiency enough to result in socioemotional difficulties? How do socioemotional difficulties in children with LI differ from those children with a primary socioemotional problem? The purpose of the study was to follow up on the authors' original study (Redmond & Rice, 1998).

Method

Seventeen children with LI and 20 typically developing children participated in Redmond and Rice's original study and were re-assessed in the follow-up study. The Child Behavior Checklist (CBCL) and the Teacher Report Form (TRF) were used to assess the children. The children were all monolingual English-speaking. Participants were rated at the end of kindergarten and at the end of first grade. Both groups of children were within normal limits on the socioemotional measures, but the children with LI had significantly more problems than the typical children. In the current study, the children were rated at the end of second grade. Teachers completed the TRF and parents completed the CBCL.

Results

Twelve forms from the children with LI were completed and 17 forms from the typical children were completed. Children with LI were more likely to have internalizing problems than externalizing their problems. There was a decreasing trend in teacher concern for children with LI in problems of withdrawal, attention, and internalizing.

Conclusions

Children with LI experienced changes over in time socially, emotionally, and behaviorally. Teachers indicated children with LI had a more difficult time being

accepted by their peers than typical children. The socioemotional difficulties experienced by children with LI differ from the socioemotional difficulties of children with psychopathologies. It is possible that children with LI experience problem behaviors in cycles, depending on the demands of their environment.

Rubin, K. H., & Asendorpf, J. B. (1993). Social withdrawal, inhibition, and shyness in childhood: Conceptual and definitional issues. In K. H. Rubin & J. B. Asendorpf (Eds.), *Social withdrawal, inhibition, and shyness* (pp. 3-28). Mahwah, New Jersey: Lawrence Erlbaum Associates.

Purpose

Rubin and Asendorpf reference various studies to highlight the importance of social interaction in a child's growth and development. They then explain social withdrawal is a term encompassing different types of solitude. The authors then analyze the different dimensions of solitude: shyness, inhibition, and passive withdrawal. Children who are inhibited, or shy, are motivated by a desire to interact but have a fear of doing so. The children are also motivated by concerns of being evaluated in social situations, especially in novel circumstances. Children who passively withdraw initially have a low desire to approach peers, but over time, this low desire to interact may be accompanied by a desire to avoid peers. Rubin and Asendorpf state there is a need to study the different faces of solitude and the impact they have on children.

Rubin, K. H., Bowker, J., & Gazelle, H. (2010). Social withdrawal in childhood and adolescence: Peer relationships and social competence. In K. H. Rubin & R. J. Coplan (Eds.), *The development of shyness and social withdrawal* (pp. 131-150). New York, New York: Guilford Press

Purpose

This chapter examines the benefits of peer interactions and its importance for development and adaptation. Social interaction leads to social competence, understanding of oneself in view of others, acceptance of a peer group, and friendships. Social competence is the ability to achieve personal goals while interacting with others and maintaining healthy relationships. A child's negative social experiences may contribute to their initial anxiety towards social situations. Withdrawn children were not as sociable and assertive as their peers and they were more easily manipulated and influenced by their peers. Withdrawn children are more likely to be actively excluded by their peers and this exclusion leads to more anxiety and depression. Socially withdrawn children struggle to form meaningful supportive friendships.

Rubin, K. H., & Coplan, R. J. (2010). Social withdrawal and shyness in childhood: history, theories, definitions, and assessments. In K. H. Rubin & R. J. Coplan (Eds.), *The development of shyness and social withdrawal* (pp. 3-26). New York, New York: Guilford Press

Purpose

Coplan and Rubin examine the history of the study of withdrawal and the meaning of social withdrawal. They discuss the importance of social interaction and reference a variety of articles to prove their point. They clarify the different types of solitude. Active isolation occurs when a child is excluded by their peers. Passive withdrawal occurs when a child removes himself from a peer group. The authors argue that children who initially remove themselves from a peer group come to be, over time, actively excluded from the group. Children may withdraw from a group due to a preference to be alone or due to a fear of being in these social interactions. Shyness is defined as occurring when a child has the desire to interact, but is too fearful to do so. Reticence is a behavioral manifestation of shyness. Reticent children will watch others play but will not engage (Coplan et al., 1994).

Rubin, K. H., Coplan, R. J., & Bowker, J. C. (2009). Social withdrawal in childhood. *Annual Review of Psychology*, 60, 141–171. doi:10.1146/annurev.psych.60.110707.163642

Purpose

The authors attempted to (a) clarify different terms associated with withdrawal, (b) understand factors contributing to withdrawal, and (c) examine consequences of withdrawal. Social withdrawal may result from social fear, anxiety, and/or a preference for solitude. Children who are withdrawn are at risk for anxiety, low self-esteem, depressive symptoms, internalizing problems, rejection, victimization, poor quality of friendships, poor teacher relationships, academic difficulties, and school avoidance. Parenting style and biological make-up of the child may influence withdrawal as well as negative social interactions. Active isolation results when children actively exclude a peer. Social withdrawal takes place when a child removes himself from a peer group. These children may over time come to be excluded by their peers. Shyness occurs when a child is anxious of new people and settings. Reticence is a behavioral manifestation of shyness and is characterized by watching, but not engaging in, the play of others.

Rubin, K. H., Hymel, S., & Mills, R. S. L., (1989). Sociability and social withdrawal in childhood: Stability and outcomes. *Journal of Personality*, 57, 237-255. doi:10.1111/j.1467-6494.1989.tb00482.x

Purpose

The purpose of this study was to examine the stability of social withdrawal and sociability from early to late childhood. The authors also wanted to know if social withdrawal was predictive of internalizing problems, thus assessing the idea that social

interaction is an important aspect of child development. Conversely, a lack of peer interaction would lead to problems in later development.

Method

One-hundred-eleven kindergartners originally participated in the study. The children were from lower-middle to middle socioeconomic backgrounds. As the study progressed, some children dropped out of the study and other children were added to the study. Social withdrawal and sociability were measured through free play and peer evaluations. In grades four and five, children completed self-reports to measure internalizing difficulties. Self-reports included the Self-Perception Profile for Children, the Loneliness Scale, and the Kovac's Child Depression Inventory. In fifth grade, teachers completed the Teacher-Child Rating Scale.

Results

Modest stability between second and fourth grade were observed in social withdrawal. A slightly higher correlation was observed in peer assessments of sociability and withdrawal across grades two and five. In grades two and four, there were no significant correlations between observed social withdrawal, observed active solitude, and peer reported withdrawal. In kindergarten and second grade, there was not a significant correlation between overall social withdrawal and internalizing problems. However, there was a significant difference between active and passive withdrawal and reported self-worth—children with more solitary passive tendencies reported higher rates of negative feelings about themselves and their competency and had higher rates of depression. Sociability in kindergarten was correlated with positive feelings of competence and self-worth. Peer assessments of withdrawal predicted internalizing problems in later grades. Reports of sociability and withdrawal in the second grade was correlated with self-reports of depression in fifth grade, but not in fourth grade.

Conclusions

The study found that overall, observed passive social withdrawal and peer reports of isolated behavior in early childhood are predictive of internalizing problems in later childhood. The data were unclear as to whether social withdrawal is the cause for these problems. The strongest predictor of internalizing problems in the fifth grade was the self-report measure of social incompetence in the second grade. It can be concluded that social withdrawal and lack of interaction are risk factors in child development.

Rubin, K. H., & Mills, R. S. (1988). The many faces of social isolation in childhood. *Journal of Consulting and Clinical Psychology, 56*, 916-924. doi:10.1037//0022-006x.56.6.916

Purpose

This study examined the stability of different forms of withdrawal and the predictive ability of social withdrawal in childhood. The authors believed previous studies in this area were flawed and that additional research was needed. One such flaw was the use of high-risk samples, thus producing skewed findings. The authors further believed there were different types of social withdrawal instead of one all-encompassing form.

Method

Eighty-eight children in the second grade participated in the study, 49 girls and 39 boys. Data on withdrawal and aggression were collected through free play observations, teacher reports, peer reports, and self-reports. In the fourth grade, 81 children were analyzed, 55 of them from the original group. The children reported loneliness and depression. In the fifth grade, 77 children participated, 51 from the original sample.

Results

There were two distinct types of social withdrawal: passive-anxious and active-immature. Passive isolation was stable across the three grades and was correlated with peer rejection, internalizing difficulties, and negative social self-perceptions. However, it was not related to externalizing problems. Active isolation was not stable and was associated with externalizing behaviors. Active isolation was not associated with problems in the fifth grade. Certain factors in the second grade significantly predicted peer-assessed aggression in the fifth grade. These factors include: active, immature withdrawal, teacher-ratings of externalizing difficulties, and peer-assess aggression.

Conclusions

Children display social withdrawal in different ways. Passive withdrawal, evaluated by peer reports, was related to negative self-perceptions. Passive withdrawal was more closely linked with disliked behaviors as the child grew older. Passive anxious withdrawal was more stable than active-immature withdrawal. Middle childhood aggression, as assessed by direct reports, is a good predictor of later childhood of externalizing behaviors. Because of the results of the study, the findings indicate the persistence of social withdrawal. Behavioral observations were not as predictive as peer reports. A strong predictor of depression was passive withdrawal.

Stoneham, G. (2001). Friendship skills in children with specific language impairment. *International Journal of Language & Communication Disorders*, 36, 276-281. doi:10.3109/13682820109177897

Purpose

Due to the lack of research investigating early friendship patterns of children with language impairment (LI), the current study was instigated. Research has indicated that patterns of struggle in early friendships leads to an inability to form meaningful relationships later in life. Research has also linked poor self-image and low self-acceptance to rejection in the typical population; however, research on the relationship between poor self-image and self-esteem on those with cognitive-linguistic impairments was lacking.

Method

Five children with a mean age of 47 months participated in the study. These children had been attending a center for individual and group intervention in addition to mainstream playgroups and/or nursery. In mainstream settings, children were reported to have a lack of initiation and social interaction, and tended not to participate in group interactions.

Two measures of friendship were used in the study: social participation and social behavior. Videotapes of the children in spontaneous play episodes were recorded and analyzed in both a mainstream setting and a specialist setting.

Results

Initial analysis of video-tapes resulted in few occurrences of social behavior. Because of this initial finding, the researcher decided to analyze social behavior in two categories: positive social behavior and negative social behavior. This allowed the researchers to code successful and failed attempts to gain attention, displayed affection, and ignored peer initiation of interaction. Instances of a child approaching an adult for interaction was also coded.

Conclusions

Solitary behavior as evidenced during the free play session in the specialist setting indicated that peers may not provide positive models of development of friendship patterns unless an adult mediates the interaction. In the mainstream setting, participants exhibited more onlooking behaviors. The research suggests that children with LI need to develop friendship skills such as sustained attention, turn-taking, and reciprocity via interactions with sophisticated peers. It appeared to the researcher that children with LI exhibited more mature friendship abilities when interacting with typical peers. The author cautions that it may be difficult to replicate the results of the study because of the small group size.

Wadman, R., Durkin, K., & Conti-Ramsden, G. (2008). Self-esteem, shyness, and sociability in adolescents with specific language impairment (SLI). *Journal of Speech Language and Hearing Research, 51*, 938-952. doi:10.1044/1092-4388(2008/069)

Purpose

The purpose of the study was to investigate if lower overall self-esteem, shyness, and low sociability were associated with of language impairment (LI) in adolescence. Another purpose was to investigate linguistic and psychosocial variables associated with overall self-esteem.

Method

Adolescents with LI between the ages of 16 and 17 years were compared to typical age-matched peers. Fifty-four adolescents comprised each group. The Rosenberg Self-Esteem scale, a self-report assessment, was used to measure overall self-esteem. To measure shyness, the 12-item Revised Cheek and Buss Shyness Scale was used. To measure sociability, the Cheek and Buss Sociability Scale was used.

Results

Adolescents with LI were found to have significantly lower overall self-esteem than their typical peers. Sixty-two percent of the participants in the group were classified as shy with only 20% of their typical peers being classified as shy. In the typical language group, males were determined to have higher self-esteem than females, however, there

was no gender difference in the group with LI. There was not a significant difference between the two groups on sociability ratings as both groups scored on the higher end of the assessment. Further results indicated that shyness, not language, was a clear predictor of self-esteem.

Conclusions

Even though older adolescents with LI have a desire to interact, they are at risk for lower overall self-esteem and shyness. They had significantly lower mean self-esteem scores than their typical peers, even though these scores were in the expected range. A gender difference existed in the typical language group, with males experiencing higher levels of self-esteem than females; however, this gender difference was not evident in adolescents with LI. The group with LI also experienced higher levels of shyness than their typical peers. Shyness was discovered to be a mediating factor between language ability and overall self-esteem.

Wadman, R., Durkin, K., & Conti-Ramsden, G. (2011). Close relationships in adolescents with and without a history of specific language impairment. *Language Speech and Hearing Services in Schools, 42*, 41-51. doi:10.1044/0161-1461(2010/10-0003)

Purpose

Because of the importance of close relationships in adolescence, researchers investigated close friendships and romantic relationships in young people with language impairment (LI) and those typically developing. Researchers examined emotional engagement in such relationships between the two groups. Researchers investigated how language, behavior, and social variables influenced emotional engagement in close relationships in adolescence.

Method

Ninety participants with a history of LI participated in the study, 62 males and 28 females. The participants ranged in age from 15;2 (years; months) to 16;9 at the time of the first assessment. At the time of the second assessment, participants ranged from 16;2 to 18;2. Ninety-one typically developing age-matched peers also participated in the study. The first assessment consisted of close relationship questions and a behavior questionnaire. The second assessment consisted of an IQ test, language test, reading test, and shyness and sociability scales.

Results

Approximately 92% of participants with LI and approximately 99% of typical peers reported they had at least one close friend. Researchers found the link between language status and having a close friend was significant. There was a small, but significant difference between the two groups when indicating if they had had a boyfriend or a girlfriend. A moderately significant difference existed between the two groups as typical adolescents had a higher percentage of thinking they would get married than those with LI. Adolescents with LI had significantly lower emotional engagement in close relationships than their typical peers. Gender was not a significant factor. A total of 24%

of participants with LI scored as having a poor level of emotional engagement in close relationships compared to 2% of their typical peers. Participants with LI also had significantly lower mean prosocial scores, higher mean difficult behavior scores, and higher mean shyness scores. Both groups had similar sociable scores.

Conclusions

Researchers concluded that having better language ability in addition to having more prosocial behaviors reduced the risk of poor emotional engagement in close relationships. Shyness is also associated with an increased risk of poor emotional engagement in close relationships. The difference between the two groups was more evident in romantic relationships. Language ability was determined to be predictive of emotional engagement in close relationships; however, it was not the only influential factor as behavioral and social factors were also influential. Prosocial behaviors helped emotional engagement and shyness detracted from it.

Weeks, M., Ooi, L. L., & Coplan, R. J. (2016). Cognitive biases and the link between shyness and social anxiety in early adolescence. *The Journal of Early Adolescence*, 36, 1095-1117. doi:10.1177/0272431615593175

Purpose

The purpose of the study was to examine the relationship of cognitive biases on shyness and social anxiety in adolescence. Researchers were particularly interested in the participants' responses to negative social situations. Researchers were also interested in the role age and gender played in links between shyness, cognitive biases, and social anxiety.

Method

A group of 606 participants between the ages of 10 and 14 years completed assessments of shyness, social anxiety, and judgment biases. To measure shyness, participants completed the Children's Shyness Questionnaire and a self-report measure of shyness. To measure social anxiety, children completed a revised version of the Social Anxiety Scale for Children. To measure the tendencies of anxiety and/or exaggeration of the probability and cost of negative events, participants completed the Probability/Cost Questionnaire for Children (PCQ-C). Only the Social Probability and Social Cost subscales of the PCQ-C were analyzed.

Results

Positive relationships between shyness, social anxiety, and judgement biases were observed. Two factors, shyness and judgment biases, were found to be significant predictors of social anxiety. Results also indicated females scored significantly higher on measures of shyness and social anxiety than males. Participants in grades 7 and 8 received higher scores on PCQ-C probability judgments than participants in grades 5 and 6.

Conclusions

Shyness and social anxiety were significantly correlated. This is important because even subclinical levels of social anxiety can put adolescents at risk for developing anxiety disorders later in life. Shyness and judgment biases were positively correlated. This finding is again important as these cognitive biases are present in anxiety disorders and is negatively associated with problem solving, emotion regulation, and social support. The findings of this study suggest targeting negative cognitive biases may be helpful in disturbing the link to shyness and then to social anxiety.

APPENDIX B

TBRS Data

Table 2

ANOVA Table for Teacher Ratings of Reticence Behavior on the TBRS Comparing Group, Age, and Gender

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power ^b
Corrected Model	17.156	7	2.451	16.816	.000	.357	117.713	1.000
Intercept	50.009	1	50.009	343.121	.000	.618	343.121	1.000
Group	15.363	1	15.363	105.410	.000	.332	105.410	1.000
Age	.287	1	.287	1.968	.162	.009	1.968	.287
Gender	.417	1	.417	2.863	.092	.013	2.863	.392
Group*Gender	.313	1	.313	2.146	.144	.010	2.146	.308
Group*Age	.259	1	.259	1.780	.184	.008	1.780	.264
Gender*Age	.158	1	.158	1.084	.299	.005	1.084	.179
Group*Gender*Age	.005	1	.005	.035	.852	.000	.035	.054
Error	30.898	212	.146					
Total	99.320	220						
Corrected Total	48.054	219						

APPENDIX C

Additional Participant Information

All Participants	General Information
School Placement	Enrollment in mainstream classroom
Hearing Status	Passed pure tone screening test administered by school personnel
Primary Spoken Language	Monolingual English speaker
Behavioral/Emotional Status	No formal diagnosis of emotional or behavior disorder
Participants with DLD	General Information
Speech-Language Services	Enrollment in language intervention (pull out service delivery model)
Individual Testing from various studies	Language Testing to Establish or Document DLD
Fujiki, Brinton & Clarke (2002)	CELF-R ¹ , TOLD-P:2 ²
Fujiki, Spackman, Brinton, & Hall (2004)	CASL ³
Brinton, Spackman, Fujiki & Ricks (2007)	CASL, TOLD-P:3 ⁴ (for 1 participant)
Brinton, Fujiki, Quist Hurst, Rowberry Jones, & Spackman (2015)	CASL
Other	CASL, CELF-5 ⁵
	IQ Testing to Eliminate Intellectual Disability
Fujiki et al. (2002)	Current testing in child's school file; in cases where testing had not been done, the WISC-III ⁶ was administered
Fujiki et al. (2004)	Current testing in child's school file (WISC-III, Matrix Analogies Test ⁷ , KABC ⁸ , Leiter ⁹ , Stanford-Binet Intelligence Scale-4 th Ed. ¹⁰ , Woodcock-Johnson ¹¹); in cases where testing was not available the TONI-2 ¹² was administered
Brinton et al. (2007)	UNIT ¹³
Brinton et al. (2015)	UNIT
Other	Current testing in the child's school file (WISC-III, KABC, Woodcock-Johnson)

Notes:

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- 13: Bracken, B. A. & McCallum, R. S. (1998). *Universal Nonverbal Intelligence Test*. Itasca, IL: Riverside Publishing.