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SCHOOL CLIMATE, ABSENTEEISM, AND PSYCHOPATHOLOGY AMONG TRUANT YOUTH

By

Marisa Charlene Hendron

Bachelor of Arts in Psychology
Temple University
2006

Master of Arts in Psychology
University of Nevada, Las Vegas
2011

A dissertation submitted in partial fulfillment
of the requirements for the

Doctor of Philosophy - Psychology

Department of Psychology
College of Liberal Arts
Graduate College

University of Nevada, Las Vegas
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Marisa Hendron

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Department of Psychology

Christopher Kearney, Ph.D., Committee Chair

Laurel Pritchard, Ph.D., Committee Member

David Copeland, Ph.D., Committee Member

Lori Olafson, Ph.D., Graduate College Representative

Kathryn Hausbeck Korgan, Ph.D., Interim Dean of the Graduate College

May 2014

ABSTRACT

School Climate, Absenteeism, and Psychopathology among Truant Youth

by

Marisa Charlene Hendron

Dr. Christopher A. Kearney, Examination Committee Chair
Distinguished Professor of Psychology
University of Nevada, Las Vegas

School refusal behavior has become highly problematic for schools worldwide. Researchers have focused efforts on examining many factors related to absenteeism, including child, parent, family, peer, school, and community variables. Many previous researchers examined absenteeism between groups (i.e. truants vs. nontruants, truants vs. school refusers). The present study investigated percentage of absenteeism in relation to contextual variables in a diverse sample of truants referred to programs designed to improve attendance. First, a model of school climate (Sharing of Resources, Order and Discipline, Parent Involvement, Student Interpersonal Relations, and Student-Teacher Relations) contributing to severity of absenteeism was tested via structural equation modeling (SEM). This model was next examined across gender, age, amount of absenteeism, and ethnicity. Second, function of school refusal behavior was examined as a potential mediator variable within the model. Third, models of school climate contributing to self-reported psychological symptoms (anxiety and depression) were examined. Fourth, models of school climate contributing to parent-reported youth psychological symptoms (somatic symptoms, attention and cognitive problems, and oppositional behavior) were examined.

The original model of school climate contributing to severity of absenteeism met goodness-of-fit criteria. The original model did not meet goodness-of-fit criteria for males or females. The original model met goodness-of-fit criteria for older (age 14-19 years) but not for younger (age 11-13 years) youth. The original model met goodness-of-fit criteria for youth with less absenteeism ($\leq$ 43%) and youth with higher absenteeism (>43%). The original model did not meet goodness-of-fit criteria for Hispanic or non-Hispanic youth. Function of school refusal behavior mediated the relationship between school climate and severity of absenteeism. Models of school climate contributing to self-reported anxiety and depression both met goodness-of-fit criteria. The model of school climate contributing to anxiety and the model of school climate contributing to depression both met goodness-of-fit criteria for males but not for females. The model of school climate contributing to parent-reported youth somatic symptoms did not meet goodness-of-fit criteria. The model of school climate contributing to parent-reported youth attention and cognitive problems did not meet goodness-of-fit criteria. The model of school climate contributing to parent-reported youth oppositional behavior did not meet goodness-of-fit criteria. This model was investigated on an exploratory basis by gender. The model met goodness-of-fit criteria for males but not for females. Results are discussed along with implications for assessment, treatment and future research.

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CHAPTER 1

INTRODUCTION

School districts worldwide have struggled for decades with the complex and problematic issue of student absenteeism. Children are mandated to attend school but many are absent each day for various reasons. School absenteeism has been referred to in the literature as truancy, school phobia, school refusal, and school refusal behavior. These terms are discussed in detail in later sections. The current study focused on the umbrella term "school refusal behavior."

The federal government does not mandate reporting cases of chronic school refusal behavior, and many states do not monitor this behavior. School districts, instead, typically report daily attendance rates for all students. In some school districts, recent cooperation between city mayors and school superintendents has led to better identification of chronic school refusal behavior, but this has not been enough to spark change at the state or national level (Balfanz & Byrnes, 2012). Many school districts struggle to provide identification and support for chronically absent students.

Contemporary scholars (Fuchs & Fuchs, 2006; Gresham, 2007) have focused on a Response to Intervention (RTI) model to identify and address students at risk for learning difficulties. The RTI model emphasizes a 3-tier approach involving universal, targeted, and intensive interventions (Ardoin, Witt, Connell, & Koenig, 2005). Kearney (2012) proposed a similar multi-tiered model for problematic student absenteeism with identification, assessment, and intervention strategies. Tier 1 includes broad strategies for all students and focuses on prevention; Tier 2 includes targeted strategies for at-risk youth who meet criteria for problematic absenteeism; Tier 3 includes individualized

strategies for youth with chronic attendance difficulties (Kearney, 2012). Tier 1 strategies include programs to enhance school climate, which were of particular importance to this study. Researchers began investigating school climate decades ago as a potentially important variable in student success.

Power and colleagues (1972) found that school environment, a variable akin to school climate, could serve as a risk or protective factor for students. Many researchers (Berg, Butler, Franklin, Hayes, Lucas, & Sims, 1993; Egger, Costello, & Angold, 2003; Kearney & Albano, 2004; Last & Strauss, 1990; McShane, Walter, & Rey, 2001) have linked internalizing and externalizing disorders and symptoms to youth with absenteeism. Furthermore, researchers have linked positive student perception of school climate with lower rates of absenteeism and psychological symptoms (Brookmeyer, Fanti, & Henrich, 2006; Corville-Smith, Ryan, Adams, & Dalicandro, 1998; Grills-Taquechel, Norton & Ollendick, 2010; Henry & Huizinga, 2007; Kuperminc, Leadbeater, & Blatt, 2001; Kuperminc, Leadbeater, Emmons, & Blatt, 1997; Modin & Ostberg, 2009; Roeser & Eccles, 1998; Shochet, Dadds, Ham, & Montague, 2006; Sommer, 1985; Wang, 2009; Wang, Selman, Dishion, & Stormshak, 2010).

Green and colleagues (2012) completed a longitudinal study that revealed important relationships between school climate and absenteeism. Student participation and homework completion were predicted by positive attitudes towards school, whereas absenteeism was predicted by negative attitudes towards school. Furthermore, absenteeism negatively predicted test performance. These findings were an important building block for the current study because they integrate school factors, truant behavior, and psychological symptoms. These studies provided support for the hypotheses that

truancy and behavioral difficulties link to student's perceptions of the school environment.

Aims of the Study

The current study built upon earlier research by examining school climate as a contributor to absenteeism and psychopathology. Function of school refusal behavior was examined as a potential mediator between school climate and absenteeism. No study had previously examined functions of school refusal behavior vis-à-vis school climate variables. Each aim of the current study was intended to examine how systemic variables (e.g., perception of school climate) affect individual variables (absenteeism, function of school refusal behavior, and psychopathology). Examining severity of absenteeism, function of school refusal and psychopathology in the context of school climate was expected to contribute detailed and valuable information to address the epidemic of school nonattendance. The current study utilized youth and parent report of variables in a large community sample from a truancy court and truancy diversion program. This new direction was expected to provide valuable information for prevention approaches at a broad, systemic (Tier 1) level.

The current study included four primary aims: (1) examined school climate as a contributor to absenteeism, (2) examined function of school refusal behavior as a mediator between school climate and absenteeism, (3) examined school climate as a contributor to self-reported psychopathology variables, and (4) examined school climate as a contributor to parent-reported youth psychopathology variables (Figure 1). The current study also examined whether variables such as gender, age, amount of absenteeism and ethnicity moderated the relationship between school climate and

absenteeism. The results of the current study increase the understanding and implications of the role of school climate in the severity of absenteeism, function of school refusal behavior, and psychopathology. The study included a examination of multiple aspects of school climate (sharing of resources, order and discipline, parent involvement, student interpersonal relations, and student-teacher relations), 4 functions of school refusal behavior, and multiple internalizing and externalizing youth psychopathology variables, as reported by parents and youth.

The following chapter reviews definitions and literature pertaining to absenteeism and related terms such as truancy, school phobia, school refusal, school refusal behavior, and school dropout. Recent findings on prevalence, age, gender, ethnic and socioeconomic differences, and course are included. The chapter presents an in depth description of the functional model of school refusal behavior and factors contributing to school refusal behavior. A detailed review of school climate studies and recent literature on the complex relationships between these variables is included. The methodology section details participants, measures, procedures, and data analyses.

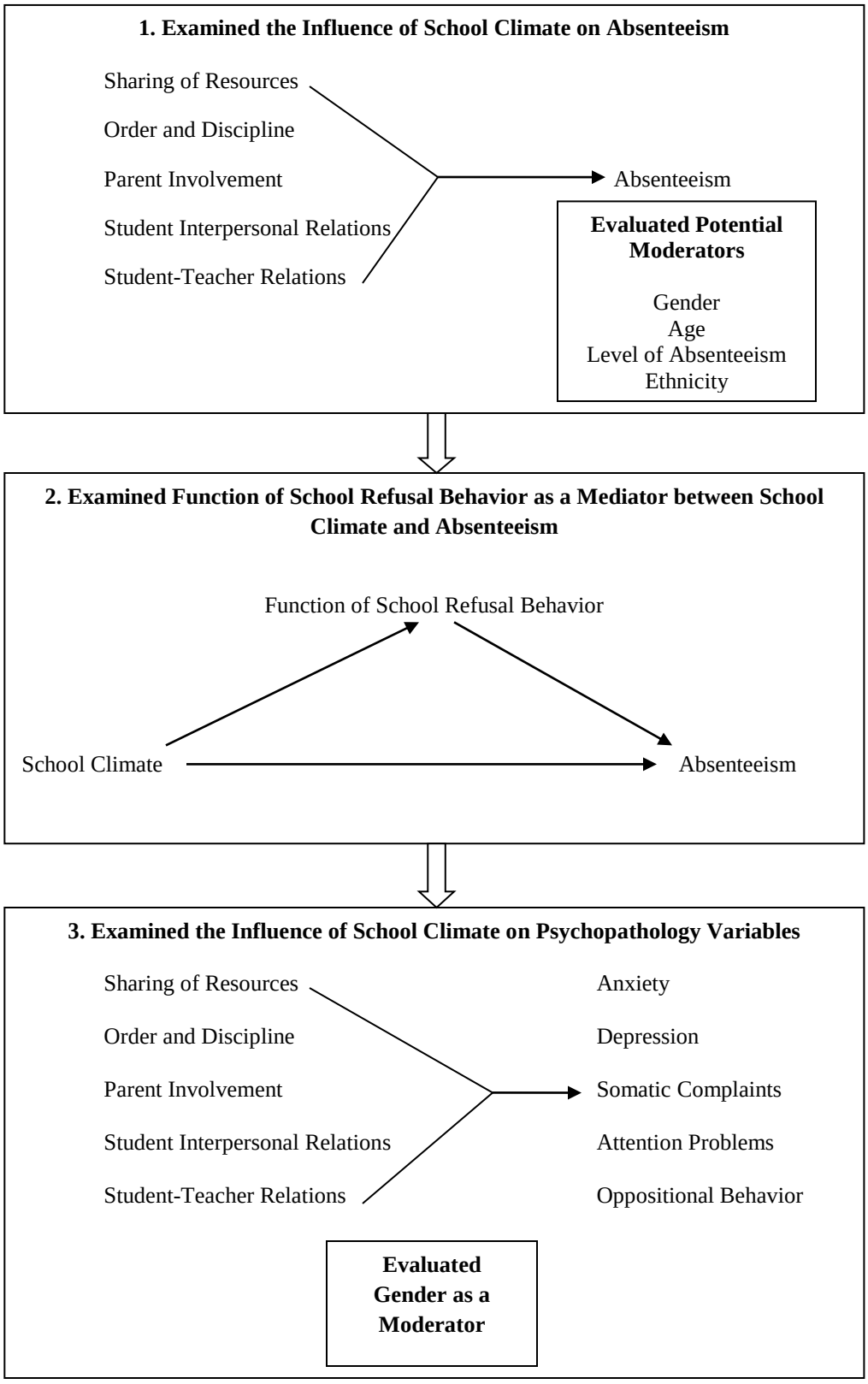


Figure 1. Current study

CHAPTER 2

REVIEW OF RELATED LITERATURE

Terms Related to Absenteeism

Early researchers defined absenteeism as "an absence from school for the entire school day" (Levanto, 1975, p. 3). Contemporary definitions refer to school absenteeism as excused or unexcused absences from elementary, middle, or high school in children aged 5-17 years. These absences may include full or partial days missed, tardiness, and duress during attendance that leads to pleas for future nonattendance (Kearney, 2001; 2008a). Excused absences account for approximately 80% of absenteeism (Hersov, 1985). Unexcused absences are more problematic and may be due to parent-motivated school withdrawal or child-motivated refusal to attend school or difficulties remaining in classes for an entire day (Kearney, 1996; Young, Brasic, Kisnadwala, & Leven, 1990).

Researchers use many terms to describe youth with problematic absenteeism (Table 1). A review of these terms follows in historical order.

Table 1

Key Definitions Related to Problematic School Absenteeism

Term	Symptom Description
School phobia	Fear-based absenteeism, as when a child refuses school due to fear of some specific stimulus such as a classroom animal or fire alarm (Tyrell, 2005)
Separation anxiety	Excessive worry about detachment from primary caregivers and reluctance to attend school (Hanna, Fischer, & Fluent, 2006)
School refusal	A broader term referring to anxiety-based absenteeism, including panic and social anxiety, and general emotional distress or worry while in school (Suveg, Aschenbrand, & Kendall, 2005)
School refusal behavior	An even broader term referring to any child-motivated refusal to attend school or difficulty remaining in classes for an entire day, whether anxiety-related or not (Kearney & Silverman, 1996)
Delinquency	Akin to conduct disorder, refers to rule-breaking behaviors and status offenses such as stealing, physical and verbal aggression, property destruction, underage alcohol or tobacco use, and violations of curfew and expectations for school attendance (Frick & Dickens 2006; McCluskey, Bynum, & Patchin, 2004)
Truancy	Illegal, unexcused absence from school; the term may also be applied to youth absenteeism marked by surreptitiousness, lack of parental knowledge or child anxiety, criminal behavior and academic problems, intense family conflict or disorganization, or social conditions such as poverty (Fantuzzo, Grim, & Hazan, 2005; Fremont, 2003; Reid, 2000)

Note. From Kearney, 2008a

Truancy

Truancy is an illegal, unexcused, and non-anxiety based absence from school. Early researchers of school nonattendance focused on differentiating aspects of truancy. One key factor was that parents of truants were reportedly unaware of their child's absences from school (Williams, 1927). Lack of parental knowledge remains a key

aspect of truancy today (Reid, 2005). Delinquency, academic struggles, or social circumstances such as poverty or homelessness are commonly associated with truancy as well (Broadwin, 1932; Fantuzzo, Grim, & Hazan, 2005; Fremont, 2003; Galloway, 1983; Kearney, 2008b). Some truants may remain on school grounds but do not attend class, whereas others leave the school campus (Kinder, Wakefield, & Wilkin, 1996). Early attempts to classify truancy involved two subtypes: delinquent and psychoneurotic.

Delinquent and psychoneurotic truancy. Partridge (1939) distinguished delinquent from psychoneurotic truancy. Delinquent truancy is a protest or rebellion against the home environment, an attempt to obtain parental attention, a way to escape uncomfortable situations, or a protest against the lack of freedom that children have at school (Broadwin, 1932; Kline, 1897). School climates that do not support student autonomy and opportunities for participation could be an early predictor of student absenteeism (Roeser & Eccles, 1998).

Other traits associated with this type of truancy include poor academic performance, association with negative peer groups, social maladjustment, lack of discipline, lying, stealing, poor home environments, substance abuse, and psychopathology (most commonly conduct disorders) (Bools et al., 1990; Broadwin, 1932; Fergusson, Lynskey, & Horwood, 1995; Hersov, 1960a; Kahn & Nursten, 1962; Nielson & Gerber, 1979; Partridge, 1939; Williams, 1927). Delinquent truants demonstrate boredom or dislike of school and poor school behavior resulting in disciplinary referrals. Many truants report problems with teachers to explain absenteeism (Sommer, 1985). Student-teacher relations were examined in relation to absenteeism and psychopathology in the current study. Truants may not feel guilt or remorse about

missing school (Malcolm, Wilson, Davidson, & Kirk, 2003). As many as 65% of truants commit criminal offenses and are more likely than nontruants to be repeat offenders (Reid, 2005). Henry (2007) found that poor academic performance, drug use, and perceived likelihood of not graduating high school were most associated with truancy.

Sommer (1985) investigated factors that contribute to truancy in 14 truants and 14 matched nontruants aged 13-15 years. Truants missed 10 or more days in the previous school year. Truants were more likely than nontruants to live in single-parent homes, have significantly lower academic scores and grade point average, have significantly more disciplinary referrals, and have less positive feelings about school. Fergusson and colleagues (1995) later investigated truancy among youth aged 11-16 years (n=935). Nearly 40% of youth admitted to at least one instance of truancy during secondary school. Youth with early signs of conduct disorder had more severe truancy in adolescence than those without early signs. Truant youth also reported juvenile offending, police contact, substance use, low self-esteem, and difficulty with mood regulation (Fergusson et al., 1995).

Broadwin (1932) reported that not all truants are delinquent. Some children demonstrated an obsessional neurotic component. Children in this group had long-term absences that occurred for months or years, and parents were aware of the child's absences. These children appeared relaxed at home but quickly became distressed when forced to attend school (Broadwin, 1932). Partridge (1939) believed these children had psychoneurotic truancy. These children did not show signs of delinquency other than nonattendance, had chronic nonattendance, and demonstrated anxiety that caused them to refuse school. The anxiety commonly related to the mother-child relationship and did not

appear related to the school environment (Partridge, 1939). This work spurred investigation into anxiety-based forms of school nonattendance such as school phobia.

School Phobia

Johnson and colleagues (1941) proposed the term school phobia to describe children with fear-based absenteeism. They suggested that school phobia involved acute anxiety with hypochondria and compulsiveness, maternal anxiety due to a life stressor, and a highly dependent mother-child relationship (Johnson, Falstein, Szurek, & Svendsen, 1941). Berry and colleagues (1993) later presented 4 personality traits common to children with school phobia: acute anxiety, apprehension, tension or uneasiness; willful domination and manipulation of a parent; depression, despair, sadness (or occasional ambivalence and hyperactivity); and unrealistic self-image. Children with school phobia do not attend school even when bribed, threatened, or punished by parents. Fear of separation or school leads to severe distress that can manifest as somatic complaints, vomiting, panic, inability to move, obsessional or hysterical behavior, or depressive symptoms (Kahn & Nursten, 1962; Talbot, 1955; Warren, 1948).

Waldfogel and colleagues (1957) noted that school phobia related more to fear of something within the school, such as a teacher, peers, or eating in the lunchroom, and less to the mother-child relationship. Other feared school stimuli may include the hallway, classroom, or fire alarm (Kearney, Eisen, & Silverman, 1995). The functional model describes these fears in youth who refuse school to avoid stimuli that provoke a general sense of negative affectivity (Kearney & Silverman, 1990). The current study examined these concerns via the function of school refusal behavior and school climate variables.

Estes and colleagues (1956) and Johnson (1957) suggested that school phobia was an inaccurate term and instead emphasized the notion of "separation anxiety." Separation anxiety occurs when a mother and child experience mutual distress upon separation, which in turn affects school attendance (Estes, Haylett, & Johnson, 1956; Johnson, 1957). Separation anxiety has been linked to attention-seeking behavior in the functional model (Kearney & Albano, 2004). Researchers thus focused on fear-based absenteeism as well as separation anxiety (Kearney, 2001). Many researchers consider school phobia to be part of school refusal, and use the two terms interchangeably. A discussion of school refusal follows next.

School Refusal

School refusal refers to anxiety-based absenteeism that may include panic, social anxiety, depression, and general emotional distress or worry while in school (King & Bernstein, 2001; Suveg, Aschenbrand, & Kendall, 2005). School refusers commonly report somatic symptoms such as nausea, stomachaches, headaches, chest pains, dizziness, and back or joint pain (Brand & O'Conner, 2004; Fremont, 2003; Stroobant & Jones, 2006). These symptoms are typically present on school days and not holidays, weekends, or days when the child stays home from school (Stroobant & Jones, 2006). Bools and colleagues (1990) found that over one-third of youth with school refusal report anxiety symptoms that are only present on school mornings. School refusal is associated with general and separation anxiety, difficulty with a teacher, fears about personal safety, social phobia, depression, and learning difficulties (Brand & O'Conner, 2004). Fremont (2003) suggested that school refusal begins gradually and may onset after a weekend, holiday, or vacation.

Some children may qualify as a school refuser or as a truant, whereas others demonstrate qualities of both categories. These children, commonly referred to as a mixed group, report the most problematic attendance (Berg et al., 1985). Researchers have focused on differences between school refusal and truancy for decades. The following section details these differences.

School Refusal versus Truancy

The presentation of absentee behavior differs between youths with school refusal and truancy. Youth with school refusal typically complain of physical symptoms such as stomachache or nausea, whereas truants generally do not. School refusal stems from an emotional or psychological difficulty, with obvious signs of anxiety, and truant behavior stems from antisocial behaviors (Heyne & Rollings, 2004). Table 2 lists common differences between school refusal and truancy.

Many researchers delineate truants from school refusers by determining the youth's whereabouts during the day when not in school (Berg et al., 1985; Galloway, 1983; McShane, Walter & Rey, 2001). Galloway (1983) defined truants as children whose parents generally did not know where their child was during school days. He defined 'other absentees' (similar to school refusers) as children who were typically home on school days. Later researchers further refined these differences by noting that school refusers generally remain at home with parental awareness of absences, despite parental attempts to encourage attendance, whereas truants typically hide their absences from parents (Berg et al., 1985; McShane et al., 2001).

Table 2

Criteria for Differential Diagnosis of School Refusal and Truancy

School Refusal	Truancy
Severe emotional distress about attending school; may include anxiety, temper tantrums, depression, or somatic symptoms.	Lack of excessive anxiety or fear about attending school.
Parents are aware of absence; child often tries to persuade parents to allow him or her to stay home.	Child often attempts to conceal absence from parents.
Absence of significant antisocial behaviors such as juvenile delinquency.	Frequent antisocial behavior, including delinquent and disruptive acts (e.g. lying, stealing), often in the company of antisocial peers.
During school hours, child usually stays home because it is considered a safe and secure environment.	During school hours, child frequently does not stay home.
Child expresses willingness to do schoolwork and complies with completing work at home.	Lack of interest in schoolwork and unwillingness to conform to academic and behavior expectations.

Note. From Fremont (2003)

School refusal and truancy research has commonly focused on behavioral and demographic differences between the two groups (Berg et al., 1985; 1993; Bools et al., 1990; Egger et al., 2003; Galloway, 1983; Warren, 1948). Truants are more likely than school refusers to demonstrate antisocial behaviors associated with conduct disorder such as lying and stealing, and they are more likely to commit more criminal offenses than school refusers. School refusers report more physical complaints and have more anxiety (as reported by parents), especially when leaving home before school (Berg et al., 1985; Galloway, 1983).

Galloway (1983) examined 79 truants and other absentees aged 5-15 years who had missed at least 50% of school days during the prior term. Males were more prevalent in the truant (61%) group than the other absentee (44%) group. Truants were older (14 years, 4 months) than the other absentee group (12 years, 4 months). Bools and colleagues (1990) later found similar gender differences but did not note a similar trend with respect to age. They investigated 100 children who had missed over 50% of the previous 12 weeks of school and classified them as truants (53%), school refusers (24%), mixed (9%), or neither (14%). No significant differences were evident with respect to age, socioeconomic status, or family composition. Gender differences were evident within the group. Males were more likely to be classified as truant (75%). Females were more likely to be classified as school refusers (62%) or as mixed (67%). Gender differences were not apparent in youth without school refusal or truancy. Most participants (53%) met criteria for a psychological disorder. Emotional disorders were reported in 14% of participants (86% of whom were females), 31% had a conduct disorder (87% of whom were males), and 8% had mixed conduct-emotional disorders (63% of whom were males). Truants had conduct disorder (49%), mixed diagnoses (4%), or no diagnosis (47%). School refusers had emotional disorders (50.0%), mixed diagnoses (12.5%), or no diagnosis (37.5%) (Bools et al., 1990). This study indicates notable differences between males and females, which was informative for the current study. Gender was examined as a moderator variable in the current hypotheses.

Berg and colleagues (1993) examined truants and school refusers aged 13-15 years who missed over 40% of the school term. Adolescents with attendance difficulties reported significantly higher rates of lying, running away, vandalism, and contact with

police than controls. Parents of adolescents with problematic absenteeism reported higher rates of rule breaking, stealing, lying, forgery, wandering from home, tempers, and fighting than parents of adolescents without attendance difficulties. Adolescents in the problematic attendance group did not meet criteria for a diagnosis (51%), met criteria for a disruptive behavior disorder (32%), or met criteria for an anxiety or mood disorder (17%). Adolescents in the truancy group did not meet criteria for a diagnosis (51%), met criteria for conduct disorder (47%), or met criteria for an anxiety disorder (2%). Adolescents in the school refusal group did not meet criteria for a diagnosis (63%), met criteria for an anxiety disorder (32%), or met criteria for conduct disorder (5%).

Egger and colleagues (2003) examined differences between anxious school refusers and truants in a community sample of 1,422 children aged 9-16 years. Parent and child reported behaviors determined whether the child met criteria for "pure anxious school refusal," "pure truancy," "mixed school refusal," or "non-school refusal." Nearly 90% of children in the mixed school refusal group met criteria for at least one disorder, whereas 25% of children in the pure anxious school refusal and pure truancy groups met criteria for at least one disorder. Only 6.8% of children without school attendance difficulties met criteria for a psychiatric disorder. Pure anxious school refusers most commonly displayed separation anxiety disorder (10.8%) and depression (13.9%). Pure truancy was typically associated with conduct disorder (14.8%), oppositional defiant disorder (9.7%), depression (7.5%), and substance abuse (4.9%). Children in the mixed school refusal group met criteria for conduct disorder (43.4%), oppositional defiant disorder (17.9%), depression (15.5%), and separation anxiety disorder (14.4%). Studies examining the differences between school refusal and truancy reveal clear differences

between the two, as well as similarities. As a result, a term that encompassed both school refusal and truancy was developed (i.e., school refusal behavior) and is discussed next.

School Refusal Behavior

Kearney and Silverman (1996) suggested the term "school refusal behavior" to encompass truancy, psychoneurotic truancy, school phobia, and school refusal. School refusal behavior refers broadly to child-motivated refusal to attend school or difficulty remaining in classes for the entire school day. School refusal behavior includes youth that completely refuse school, attend school and leave during the day, attend school with difficulty after misbehaving in the morning, or attend school under duress, which may lead to pleas for future nonattendance. Kearney and Silverman (1996) identified three types of school refusal behavior: self-corrective, acute, and chronic. Each type denotes the duration of the problem, ranging from refusal that ends spontaneously (self-corrective) to behavior that lasts 2-52 weeks (acute) to behavior that persists more than one calendar year (chronic). Chronic school refusal behavior may result in eventual school dropout.

School Dropout

According to the National Center for Education Statistics, the status dropout rate in 2008 was 8%. This accounts for the number of 16-24-year-olds who did not earn a high school diploma or equivalent and are not enrolled in school (NCES, 2010). Smaller schools, more challenging coursework, positive relationships with teachers, and less grade retention relate to less student dropout (Jimerson, Anderson, & Whipple, 2002; Lee & Burkham, 2003). Janosz and colleagues (1997) found that school, family, social, behavioral, and psychological variables predict school dropout. School variables such as

grade retention, poor grades, and school disengagement better predicted dropout than family variables. School variables were especially important to the current study. The study aimed to identify school factors related to absenteeism, which are commonly associated with dropout. According to Byrnes and Reyna (2012), absenteeism was the strongest predictor of high school dropout.

High school dropout also negatively affects the economy. Adults who drop out of high school cost the American public approximately $240,000 over their lifetime by contributing less tax dollars, relying more heavily on government funded health care and the welfare system, and committing higher rates of criminal acts than high school graduates (Levin & Belfield, 2007). Students who drop out of school also suffer severe consequences such as unemployment and low earning potential (Levin, Belfield, Muennig, & Rouse, 2007; Sum, Khatiwada, McLaughlin, & Palma, 2009).

Tramontina and colleagues (2001) examined school dropout and conduct disorder in Brazilian elementary school students. The study included 93 children who missed 15 consecutive days or more of school without a valid excuse. Significant differences existed between school dropouts and children still attending school. Dropouts were older and had a lower IQ than controls. Children that previously repeated a grade had a greater likelihood of later dropout. The two groups did not differ significantly with respect to number of suspensions and expulsions. Dropouts had significantly higher rates of conduct disorder than controls. Depression, anxiety, attention-deficit hyperactivity disorder, and oppositional defiant disorder did not differ between the groups. Tramontina and colleagues (2001) suggested that conduct disorder is an important factor in school dropout.

Each of these terms describe youth with attendance difficulties. In addition to these terms, it is important to consider the characteristics of youth with absenteeism. Relevant characteristics such as prevalence, age, gender, ethnicity and socioeconomic status, and course follow next.

Characteristics of Absenteeism

Prevalence

According to the National Center for Education Statistics (2006), approximately 5.5% of school-aged children are absent from school daily in the United States. Recent estimates, however, purport that the rate of chronic absenteeism may be as high as 15% nationwide. Furthermore, some high schools report that only 25% of students attend regularly. Rates of absenteeism tend to vary by geographic location and are difficult to measure because the definition of chronic absenteeism varies by state (Balfanz & Byrnes, 2012). The National Center for Education Statistics (NCES, 2006) reported that 19% of 4th grade students and 20% of 8th grade students missed 3 or more school days in 1 month. Up to 7% of 4th and 6th grade students missed at least 5 days of school per month (NCES, 2006). Over 50% of 8th, 10th, and 12th grade students missed at least one day of school in a 4-week period in 2000 (NCES, 2002). Chronic absenteeism, defined as missing more than 18 days in the school year, occurred in more than 11% of kindergarten students, nearly 9% of 1st grade students, 6% of 3rd grade students and 5% of 5th grade students (National Center for Children in Poverty, 2007). Last and Strauss (1990) found that 23% of children had mild absenteeism (missing 1 day in 2 weeks), 22% had moderate absenteeism (missing 1 day per week), 17% had severe absenteeism (missing several days per week), and 38% had extreme absenteeism (missing several weeks).

Egger and colleagues (2003) reported prevalence rates for school refusal (1.6%), truancy (5.8%), and mixed school refusal (0.5%). In the 2009-2010 school year, 2,733 truancy citations were issued in the Clark County School District. Of these, 71% were for habitual truancy, 18% were for subsequent truancy, and 10% were for educational neglect. Over a 3-year period, the number of youth referred to the Clark County Truancy Court program increased by 40%. In the 2010-2011 school year, there were 3,381 incidents of habitual truancy reported.

Henry (2007) examined self-reported truancy in 5,684 8th and 5,429 10th grade students. Students reported the number of unexcused absences they had in the 4 weeks prior to assessment. Results showed that 10.5% of 8th grade students and 16.4% of 10th grade students missed 1 or more unexcused days of school in the past 4 weeks. A majority of truants, 7.5% of 8th grade students and 11.4% of 10th grade students, skipped 1-2 days. Approximately 1.5% of all students missed 11 or more days in a 4-week period.

Rates of complete absenteeism vary across school type (public versus private, elementary versus secondary), setting (rural versus urban), and size. Public and private school absenteeism rates are 5.9% and 4.1%, respectively. Elementary schools have less absenteeism than middle and high schools (5.2%, 6.3%, and 8.0%, respectively) (NCES, 1996). In some of the most problematic high schools in Maryland, one-half to two-thirds of students are chronically absent (Balfanz & Byrnes, 2012). Inner city schools have more absenteeism than rural schools (5.7% and 5.3%, respectively). Rates of absenteeism are highest in public inner-city high schools and lowest in rural elementary schools (NCES, 1996).

Partial absenteeism. Partial absenteeism includes tardiness or skipped classes. In the 2007-2008 school year, over 33% of teachers reported partial absenteeism (tardiness and cutting class) as a serious problem that interfered with their teaching (NCES, 2008). Rates of partial absenteeism also vary by school. Public schools (5.7%) have higher rates of partial absenteeism than private schools (2.8%). Inner city schools (7.1%) have higher rates of partial absenteeism than rural schools (3.8%) (NCES, 2007).

Duress in school. Granell de Aldaz and colleagues (1984) found the average prevalence rate of absenteeism and fears or dislike of school to be 4.9%. Nearly one-fifth of students aged 3-14 years (17.7%) indicated fears involving school. Parents and teachers estimated these rates at 7.7% and 2.7%, respectively. The approximate rate of fear-nonattendance was 5.4%. Kearney and Beasley (1994) reported the rate of specific phobia in school refusing youth to be 10%, while 35% of participants reportedly refused school due to aversive and anxiety-provoking school-based stimuli.

Age

Rates of missing entire days of school or individual classes increases with age (Hansen, Sanders, Massaro, & Last, 1998). An increase in absenteeism occurs at ages 5-6 years when children enter kindergarten and at age 10-13 years when children enter middle school (Kearney, 2008b; Ollendick & Mayer, 1984). Last and Strauss (1990) found that children refusing school due to school phobia had a later age of onset (12.4 years) than youth refusing school due to separation anxiety (8.7 years). Fergusson and colleagues (1995) reported that truancy increased from 3% at age 12 years to 30% at age 16 years. Balfanz and Byrnes (2012) reported that children in 3rd through 5th grade attend school most regularly, and that chronic absenteeism gradually increases during middle

school through 12th grade. Egger and colleagues (2003) found that the mean age of onset was 10.9 years for pure anxious school refusal and 13.1 years for pure truancy. Youth with mixed school refusal report that characteristics of anxiety occurred prior to truancy. The current study examined age as a potential moderator variable between school climate and severity of absenteeism.

Gender

Absenteeism is generally equal in males and females (Balfanz & Byrnes, 2012; Fremont, 2003; Hansen et al., 1998; Kearney & Albano, 2004). Nielsen and Gerber (1979) found equal rates of absenteeism in males and females, though males had an earlier age of onset. Fergusson and colleagues (1995) found rates of truancy almost equal for males (39.2%) and females (40.4%). Conduct problems are commonly associated with male absenteeism, whereas fear and anxiety are commonly associated with female absenteeism (Kearney, 2001). The National Center for Education Statistics (2004) reported that the school dropout rate varies between genders and is approximately 11.6% for males and 9.0% for females. Problematic nonattendance in the Clark County Truancy Court is slightly higher for males (55%) than females (45%) (Hendron, 2010). Clinical studies (Bernstein & Garfinkel, 1986; Hersov, 1960a; Kearney & Albano, 2004) reveal higher rates of males as participants, as high as 62.9% (Kearney & Albano, 2004). The current study examined gender as a potential moderator variable between school climate and severity of absenteeism and school climate and psychopathology.

Ethnicity and Socioeconomic Status

Racial differences in absenteeism can be difficult to determine because minority individuals do not seek clinical treatment as frequently as non-minority individuals

(Kearney, 2001). Cairns and colleagues (1989), however, found rates of absenteeism to be similar for nonminority students and ethnic minorities when controlling for socioeconomic status. Prevalence varies slightly by ethnicity; African Americans (23%) and Hispanics (22%) have slightly higher rates of missing 3 or more days of school than European Americans (19%) (NCES, 2010). Native American students have higher rates of chronic absenteeism than other minority students (Balfanz & Byrnes, 2012). Minority students and students from low socioeconomic backgrounds, however, tend to have greater school dropout rates than nonminority students and students of higher socioeconomic backgrounds (Egger et al., 2003; Kearney, 2008a; NCES, 2006). Hispanics (17.6%) have higher rates of school dropout than African Americans (9.3%) and European Americans (5.2%). Living in a poor family (below federal poverty level) or eligibility for free or reduced-price lunch program increases a child's likelihood of being chronically absent (Balfanz & Byrnes, 2012; Romero & Lee, 2007). Balfanz and Byrnes (2012) reported that as many as one-third of students in high poverty areas are chronically absent from school.

A previous study of youth in the Clark County Truancy Court found that over 75% of participants were minority group members. Youth in the Clark County Truancy Court were Hispanic (62.5%), European American (12.5%), African-American (9.9%), other (6.8%), multiracial (4.7%), Native American (2.6%), or Asian-American (1%) (Hendron, 2010). The current study examined ethnicity as a potential moderator variable between school climate and severity of absenteeism.

Course

Immediate and short-term consequences of problematic absenteeism may include fines and financial expense, distress, social alienation, psychiatric problems, poor academic achievement, school failure, and juvenile detention (Berg, 1992; Berg, Nichols, & Pritchard, 1969; Fremont, 2003). Effects of problematic absenteeism may continue into adulthood. Youth who do not attend school commonly demonstrate delinquent behaviors such as substance use and violence (Bell et al., 1994; McClusky, Bynum, & Patchin, 2004). Chronic absenteeism may lead to eventual school dropout, which can have serious consequences in adulthood. Consequences may include social and marital difficulties as well as failure to pursue higher education, lower earning potential, reliance on welfare services, and unemployment (Fremont, 2003; Garry, 1996; Kogan, Luo, Brody & Murry, 2005; Richtman, 2007; Sheldon & Epstein, 2004; Tramontina et al., 2001). Hibbett and colleagues (1990) reported that, as adults, truants were more likely than nontruants to be unemployed and have a less stable job history. Truants had a lower family income than nontruants. Truants were more likely to experience martial difficulties than nontruants. Male truants are nearly two times more likely and female truants are over three times more likely to have been married and divorced compared to nontruants (Hibbett & Fogelman, 1990).

Mental health difficulties are also a common long-term effect of problematic absenteeism. Hibbett and Fogelman (1990) found that truancy was related to higher rates of depression and heavy smoking in adulthood. Flakierska-Praquin and colleagues (1997) reported that 49% of individuals with school attendance difficulties during adolescence received inpatient or outpatient psychiatric care as adults. Adults with a

history of problematic absenteeism typically seek psychological services more than adults without such a history (Flakierska, Lindstrom, & Gillberg, 1988).

Functional Classification of School Refusal Behavior

Researchers have focused on assessing and treating youth with school refusal behavior for decades but have failed to reach consensus on these clinical processes. Kearney and Silverman (1990; 1993; 1995; 1996) developed a classification system based on factors or functions that maintain school refusal behavior. These functions include aspects of negative and positive reinforcement. The following sections outline the functions of school refusal behavior.

Negative Reinforcement

Negative reinforcement refers to termination of an aversive event that leads to increased frequency of behavior (Kearney, 2001). Two negative reinforcement functions may contribute to continued absenteeism. The first refers to avoidance of school-related stimuli that provoke negative affectivity. Examples include the school bus, a teacher, or the fire alarm, though many children cannot give a specific example of what causes their distress. Sadness and somatic complaints such as headache and stomachache are common among children who refuse school for this reason (Kearney, 2001; Kearney & Silverman, 1990). These children tend to score higher on measures of anxiety than children who refuse school for positive reinforcement. Children who refuse school for negative reinforcement have fewer attention, delinquent, and aggression difficulties than those who refuse school for positive reinforcement. They tend to have more active and cohesive families than children with other functions of school refusal behavior (Kearney & Silverman, 1995).

The second negative reinforcement function is escape from aversive social or evaluative situations. This function tends to occur more frequently in older children and adolescents. Children of this function may have difficulties with teachers, peers, tests, public speaking, performance in gym class, or walking in the hallways. Social anxiety and depression are frequently associated with this group. Other areas of difficulty include somatic complaints and social withdrawal (Kearney, 2001). Delinquent behavior is less common among these children than children in the positive reinforcement groups (Tillotson & Kearney, 1998).

Positive Reinforcement

Positive reinforcement refers to the strengthening of a behavior following tangible or intangible rewards. Two positive reinforcement functions may contribute to continued absenteeism. The first refers to attention-seeking behavior, or children who seek attention from adults or caregivers. Children who seek attention tend to be younger and misbehave in the morning to miss school. These misbehaviors include tantrums or exaggerated physical complaints. They seek to evoke sympathy and gain attention from a parent or caregiver. Some children exhibit signs of separation anxiety but their primary desire is to induce parental acquiescence to demands to remain home from school. These children also demonstrate oppositional symptoms and their families tend to be less cohesive and more enmeshed than families of children who refuse school for negative reinforcement (Kearney & Silverman, 1995).

The second positive reinforcement function is pursuit of tangible rewards outside of school. Rewards may include sleeping, shopping, working, watching television, playing video games, or spending time with friends (Kearney, 2001). Children in this

category have less distress than children in other groups. They also have a greater likelihood of attention problems, delinquency, and aggressive behaviors than other school refusing children (Tillotson & Kearney, 1998). Individuals in this category have families who tend to be less cohesive and more conflictive (Kearney & Silverman, 1995).

Pure versus Mixed Functions

Youth may demonstrate a single function of school refusal or may demonstrate a combination of functions. Klein (1945) suggested that children typically have one cause for refusing school and then begin to experience secondary gains for missing school. These secondary gains are similar to what Kearney (2002a) referred to as mixed functional profiles, where the causes for school refusal become more intertwined. This overlapping may relate to chronic absenteeism (Klein, 1945).

Less attention has focused on youth who refuse school for multiple reasons (Kearney, 2002a). Some children initially refuse school to avoid negative stimuli and then discover the positive amenities of staying home (e.g., attention, tangible rewards). Other children may stay home for an extended period and then experience anxiety about returning to school with new teachers, peers, and classes. Both examples refer to children who refuse school for negative and positive reinforcement, which requires a combination of treatment strategies (Kearney, 2002a).

Functional Assessment and Absenteeism

Kearney (2007) assessed a large, ethnically diverse sample of youth referred to a university-based clinic for school refusal behavior. The study was partly designed to examine the value of the functional model of school refusal behavior as an indicator of severity of absenteeism. Participants included 222 (134 males, 88 females) school

refusing youth aged 5-17 years. Participants were European American (67.6%), Hispanic (5.4%), African American (3.2%), or other (1.8%) (unreported: 22.1%). The average amount of school days missed was 38.2% (in the current school year). Youth had missed multiple full or partial days of school, were late to school, skipped certain classes, had disruptive behaviors in the morning to avoid school, or had frequent pleas for nonattendance due to fear of attending. Child assessment measures included the Children's Depression Inventory (CDI) (Kovacs, 1992), Fear Survey Schedule for Children-Revised (FSSC-R) (Ollendick, 1983), Revised Children's Manifest Anxiety Scale (RCMAS) (Reynolds & Richmond, 1985), School Refusal Assessment Scale-Child (SRAS-C) (Kearney, 2002b; Kearney & Silverman, 1993), Social Anxiety Scale for Children-Revised (SASC-R) (LaGreca & Stone, 1993), and State-Trait Anxiety Inventory for Children (STAIC) (Speilberger, 1973). Parent assessment measures included the Child Behavior Checklist (CBCL) (Achenbach, 1991) and School Refusal Assessment Scale-Parent (SRAS-P) (Kearney, 2002b; Kearney & Silverman, 1993).

Two sets of hierarchical regression analyses (one examining forms of behavior and one examining functions of behavior) were conducted for child and parent reports, using severity of absenteeism as the dependent variable. Structural equation modeling (SEM) was conducted to examine goodness-of-fit, followed by meditational analyses. Kearney (2007) tested a youth and a parent model in which (1) degree of school absenteeism was associated with function and forms of school refusal behavior, and (2) function was associated with forms of school refusal behavior. Each analysis examined the predictor-mediator-outcome (A (forms of school refusal behavior) → B (function of school refusal behavior) → C (severity of school absenteeism)) path.

Preliminary hierarchical regression analyses for youth self-report indicated that scores on forms of school refusal behavior were not a significant predictor of absenteeism. However, each of the four functions of school refusal behavior did significantly predict severity of absenteeism. The youth model A → B → C (forms of school refusal behavior → function of school refusal behavior → severity of absenteeism) met goodness-of-fit criteria (CFI = .901, IFI = .904, SRMR = .066). Acceptable fit was also found for the A → C model (CFI = .951, IFI = .952, SRMR = .058) and the A → B → C model ($\chi^2 = 76.13$, $p < 0.001$). The constrained A → B → C model also displayed adequate fit (CFI = .900, IFI = .903, SRMR = .066) ($\chi^2 = 76.42$, $p < 0.001$) and was not significantly different from the unconstrained model. Function of school refusal behavior mediated the relationship between forms of school refusal behavior and degree of school absenteeism.

Preliminary hierarchical regression analyses for parent report indicated that scores on forms of school refusal behavior were not a significant predictor of absenteeism. However, each of the four functions of school refusal behavior did significantly predict severity of absenteeism. The initial model did not meet goodness-of-fit criteria and model trimming ensued. The tangible reinforcement function did not contribute to the model and was removed with multiple scales from the CBCL (delinquent behavior and aggressive behavior and withdrawn and somatic complaints). This new model met criteria for goodness-of-fit (CFI = .926, IFI = .930, SRMR = .053). Mediational criteria were not met for parent data.

This study, especially youth data, provided strong evidence that function of school refusal behavior may be a key variable to consider in addition to form of behavior

when examining degree of absenteeism (Kearney, 2007). The current study examined function of school refusal behavior as a potential mediator between school climate and absenteeism. Function of school refusal behavior is central to the current study, though additional factors may influence absenteeism and are discussed next.

Etiological Factors

Many factors contribute to the onset of school refusal behavior. Factors may include child, parent, family, peer, and school variables. These variables commonly interact with one another and may lead to complex and difficult cases (Kearney, 2008b). The current study aimed to examine variables at individual and systemic levels. Individual factors will include psychological symptoms, demographics and severity of absenteeism. Systemic factors will focus on school climate variables including Sharing of Resources, Order and Discipline, Parent Involvement, Student Interpersonal Relations, and Student-Teacher Relations. The following sections detail variables commonly related to school refusal behavior.

Child Factors

A child may have trouble attending school due to personal factors such as social skills deficits, cognitive or learning disabilities, health problems, or emotional difficulties (McCluskey, Bynum, & Patchin, 2004). Children with problematic attendance also experience low self-esteem (Corville-Smith et al., 1998; Reid, 1982, 1984; Southworth, 1992). These deficits commonly lead to an inability to develop relationships with peers and teachers, and a greater difficulty adapting to the school environment, which then leads to pleas for nonattendance (Barth, 1984). Children with attendance difficulties also have certain personality characteristics, including low openness, agreeableness,

conscientiousness, and emotional stability (Kee, 2001; Lounsbury, Steel, Loveland, & Gibson, 2004; Okuyama, Okada, Kuribayashi, & Kaneko, 1999). Children with problematic attendance are passive, lack independence, and are immature and asocial (Berg & McGuire, 1971; Hersov, 1960a). Risk factors for school refusal or dropout may include being two (or more) years older than one's school peer group and having friends who have dropped out of school (Kearney, 2001).

Pregnancy commonly leads to nonattendance and eventual school dropout. Frequent absenteeism can also be an indicator of teenage pregnancy (Kearney, 2008b). Only 60-80% of teenage mothers complete high school (Hofferth, Reid, & Mott, 2001). Almeida and colleagues (2006) conducted a study of teenage pregnancy and school outcome in 3,042 Brazilian young adults aged 20-24 years. Nearly 30% of females reported being pregnant before 20 years of age, and over 20% of males reported having a pregnant partner before age 20 years. Almost 50% of females with an interrupted school history reported a teenage pregnancy. Females most frequently leave school before graduation due to having a child. Males most frequently leave school before graduation to work. Rates of female dropout nearly doubled (40.1%) after pregnancy compared to before or during pregnancy (20.5%) (Almeida, Aquino, & de Barros, 2006).

Health problems frequently contribute to school refusal behavior. Youths with asthma tend to miss more school than those without asthma (Kearney, 2001). In 2002, asthma contributed to approximately 14.7 million days of school missed (Centers for Disease Control and Prevention, 2004). Youths with asthma typically miss more school and may have a tendency to seek attention due to their illness, or malinger to continue missing school (Creer, Renne, & Chai, 1982). Other health problems associated with

school refusal behavior include glucoregulatory problems, sleeping and eating difficulties, and problems regulating body temperature (Iwatani et al., 1997; Kearney, 2001; Tomoda, Miike, Yonamine, Adachi, & Shiraishi, 1997). Psychopathology, including internalizing and externalizing disorders, is associated with children that have school refusal behavior. A detailed review of this literature follows.

Associated symptoms. Youth with school refusal behavior demonstrate considerable heterogeneity in their symptoms and behaviors. Professionals still experience difficulty distinguishing youth refusing school due to school refusal and anxiety from those who more closely resemble truants with conduct and oppositional features. Researchers are unclear whether psychiatric conditions lead to school refusal behavior, or if chronic absences precede these conditions (Kearney, 2008b).

Somatic symptoms commonly lead to absences from school (Last, 1991). Complaints may include headache, stomachache, nausea, vomiting, diarrhea, fatigue, sweating, lightheadedness, chronic pain, heart palpitations, shortness of breath, and menstruation symptoms (Kearney, 2008b). Children with somatic complaints commonly see medical professionals first, which delay appropriate psychological referrals to address the cause of the symptoms (Last, 1991). Stress influences somatic symptoms, which are difficult to treat. Youth may also exaggerate these symptoms to obtain attention or to stay home from school (Kearney, 2008b).

Bernstein and colleagues (1997) examined somatic symptoms in adolescents with school refusal. The study included 44 adolescents aged 12-18 years who met criteria for anxiety and depression. Youth were (1) absent from school at least 20% of days in the 4 weeks prior to assessment, (2) diagnosed with at least one anxiety disorder based upon

child or parent interview, (3) diagnosed with major depression, and (4) were post puberty (Bernstein et al., 1997). Youths demonstrated elevated levels of somatic complaints, symptoms of anxiety and depression, and withdrawal. Nearly one-third of adolescents (31.8%) reported five or more somatic symptoms. Over 20% of adolescents reported feeling faint/light-headed/dizzy, sick to stomach, and back pain. The next most commonly reported symptoms were stomach pains and vomiting (18.2%). Separation anxiety was commonly associated with gastrointestinal complaints and lower levels of nonattendance. Somatic complaints coupled with school refusal should serve as a "red flag" for parents and school officials to consider anxiety and/or depression (Bernstein et al., 1997). The current study examined whether school climate contributed to somatic symptoms, as reported by a parent or guardian of youth in the study.

Associated disorders. Psychological disorders are often diagnosed among individuals with school refusal behavior. Commonly diagnosed disorders include conduct, anxiety, and mood disorders (Berg et al., 1993; Bernstein & Garfinkel, 1986; Bools et al., 1990; Egger et al., 2003; Kearney & Albano, 2004; Last & Strauss, 1990; McShane et al., 2001). Bools and colleagues (1990) found that nearly one-third (31%) of youth with school attendance difficulties met criteria for conduct disorder. Lahey and colleagues (1999) reported that early onset of conduct disorder (age 8-12 years) implied a more severe course whereby youth were likely to engage in physical aggression, lying, theft, vandalism, and truancy. Later onset implied a less severe course, whereby youth were likely to engage only in truancy. The researchers also noted higher levels of conduct disorder in males (26%) than females (19%) as well as earlier self-reported onset in males (9.6 years) than females (10.2 years) (Lahey et al., 1999).

An additional factor to consider in school refusal behavior and related psychopathology is comorbidity. Youth with school refusal behavior frequently meet criteria for two or more disorders. Bernstein and Garfinkel (1986) reported that 50% of youth with school phobia met criteria for anxiety and depression. Youth with comorbid anxiety and depression scored higher on self-report measures of anxiety and depression than youth with anxiety or depression alone. Last and Strauss (1990) found separation anxiety disorder (38.1%), social phobia (30.2%), simple phobia (22.2%), panic disorder (6.3%) and posttraumatic stress disorder (3.2%) among school refusers. Nearly three-fourths of youth (71.4%) met criteria for comorbid diagnoses, including overanxious disorder (25.4%), social phobia (12.7%), simple phobia (12.7%), avoidant disorder (11.1%), and major depression (12.7%). According to Hansen and colleagues (1998), over half of school refusers (53%) met criteria for more than one diagnosis, though severity of absenteeism did not increase with comorbid anxiety disorders. The current study examined school climate as a potential contributor to psychological symptoms in youth, including anxiety, depression, somatic symptoms, attention and cognitive problems, and oppositional behavior.

Researchers have also examined differences between youth requiring inpatient treatment versus youth requiring outpatient treatment (Borchardt et al., 1994; McShane et al., 2001). Borchardt and colleagues (1994) examined 28 age- and gender-matched inpatient and outpatient adolescents with school refusal. The two groups showed no differences in age or duration of the problem. The inpatient group had significantly more affective disorders (89.3%) than the outpatient group (50%). The inpatient and outpatient groups did not differ significantly with respect to prevalence of anxiety disorders (75%

and 67.9%, respectively). Inpatients had an average of 2.4 Axis I disorders, whereas outpatients had an average of 1.8 Axis I disorders. Youth treated as inpatients had more severe cases of affective disorders. McShane and colleagues (2001) reported that inpatient participants had higher rates of dysthymia than outpatient school refusers. Youth treated in outpatient programs reported higher rates of panic and disruptive behavior disorder not otherwise specified. They also found that over half of participants (55%) met criteria for more than one diagnosis, and dysthymia was commonly comorbid with major depression, separation anxiety disorder, and oppositional defiant disorder (McShane, Walter, & Rey, 2001). Findings were similar to Borchardt and colleagues (1994), such that inpatients had more comorbid diagnoses than outpatients.

Previous studies demonstrate significant heterogeneity and overlap between school refusal and truancy, and internalizing and externalizing symptoms and disorders. These studies indicate that forms of school absenteeism are related to a number of diagnoses and symptoms. This makes understanding the motivation underlying nonattendance difficult. The work of earlier researchers warrants more detailed work on the reinforcing variables of school refusal behavior, as in the current study.

Functional studies. Kearney and Albano (2004) investigated the relationship between functions of school refusal behavior and psychopathology in a clinical sample of 143 youths aged 5-17 years. Youth missed an average of 37.2% of school days. Nearly two-thirds (67.1%) of the sample received a primary diagnosis and 32.9% received no diagnosis. Of those receiving a primary diagnosis, 30.8% met criteria for a second diagnosis, 11.9% received a third diagnosis, 4.2% met criteria for a fourth diagnosis, and 2.1% received a fifth diagnosis. The most common primary diagnoses included

separation anxiety disorder (22.4%), generalized anxiety disorder (10.5%), oppositional defiant disorder (8.4%), and depression (4.9%).

Relationships between certain diagnoses and functions of school refusal behavior were evident. Separation anxiety disorder most frequently related to attention seeking behavior. Anxiety disorders most frequently related to negative reinforcement functions of school refusal behavior. Disruptive behavior disorders most frequently related to pursuit of tangible reinforcement outside of school. Older children typically refused school to escape aversive social and/or evaluative situations or to pursue tangible reinforcement outside of school. Younger children typically refused school to receive attention or to avoid stimuli that provoke negative affectivity. The most severe cases involved children that refused school to avoid stimuli that provoke negative affectivity (Kearney & Albano, 2004).

Hendron (2010) further investigated the relationships described by Kearney and Albano (2004) in a community sample. Hendron (2010) examined 200 students aged 11-17 years referred to the juvenile justice system or a remediation program for truancy. Results were consistent with Kearney and Albano's (2004) study. Youth refusing school to avoid stimuli that provoke negative affectivity had greater symptoms of generalized anxiety and depression than youth in other functional groups. Youth refusing school to avoid aversive social or evaluative situations had greater symptoms of social anxiety than youth in other groups. Youth refusing school for attention had greater symptoms of separation anxiety than youth in other groups. Youth refusing school to pursue tangible reinforcement outside of school had greater oppositional behavior difficulties than youth

in other groups. Most youth (61%) refused school primarily to pursue tangible reinforcement outside of school.

Individual factors commonly contribute to or exacerbate school attendance difficulties, but other contextual factors are also important. Contextual factors may include characteristics of the home or family as well as factors within the youth's school, such as relationships with teachers and other students, student behavior, and opportunities for students. The focus of the current study was to examine broad school factors that contribute to absenteeism; however, it is important to discuss other areas that may affect youth school attendance. Difficulties with parenting practices and parental psychopathology may affect a child's attendance. The current study investigated parental involvement as one subscale of school climate. A review of parent variables follows.

Parent Factors

Early researchers (Johnson et al., 1941) suggested that a parent, especially the mother, influences a child's school attendance. Mothers of children with school refusal may be overprotective and do not encourage dependence and autonomy in their children, whereas fathers may be absent from family life and do not demonstrate authority over the children (Hersov, 1960a; Takagi, 1972). Kahn and Nursten (1962) suggested that truancy might be the result of youth and parents failing to accept and adhere to social standards and education laws. According to Zhang (2004), a spotlight has been focused on "irresponsible parents." These parents allow children to be absent from school without consequence and may do activities, such as shopping, with the child during the school day. Another factor to consider is the relationship between the parents and the school. This may include a lack of communication between parents and school officials regarding

absences and poor parental involvement in school (Guare & Cooper, 2003). Parental participation in school activities was examined in the current study as a potential predictor of absenteeism, function, and psychopathology variables.

Approach to parenting is important to consider when a child has school absences. Problematic approaches to parenting that relate to school refusal behavior include poor involvement and supervision and a permissive parenting style (Astone & McLanahan, 1991; Ekstrom, Goertz, Pollack, & Rock, 1986; Fagan & Pabon, 1990; Rumberger, 1983). Children of parents who do not give substantial or effective assistance with schoolwork may feel overwhelmed and withdraw from school (Astone & McLanahan, 1991).

A relationship exists between parental psychiatric problems and school refusal behavior in youth. Parents of youth with school refusal behavior commonly report panic disorder and agoraphobia (Martin, Cabrol, Bouvard, Lepine, & Mouren-Simeoni, 1999). Berg and colleagues (1993) reported that mothers of youth with problematic attendance have significantly higher rates of anxiety and depression than mothers of same-aged peers without attendance difficulties. Youth with school refusal behavior are more likely than nonrefusers to have mothers that refused school in the past. Further, youth with school refusal due to separation anxiety were more likely than youth with school phobia to have mothers that refused school (Last & Strauss, 1990).

Single parents tend to have more difficulty getting their children to attend school and are more likely to have children that eventually drop out of school (Mueller & Cooper, 1986). This relationship is associated with single parents having lower expectations for educational attainment, not providing as much encouragement as dual

parents, and having negative responses to poor academic achievement in their child compared to children of intact families (Astone & McLanahan, 1991). Bernstein and colleagues (1990) reported that 40% of youth with school refusal live with a single parent (Bernstein, Svingen, & Garfinkel, 1990). Single mothers typically spend less time supervising their children to work more hours outside of the home (Douthitt, 1989). Single-parent families are more common among inpatient adolescents treated for school refusal and related disorders (Borchardt et al., 1994). Parents that lack strong social support also have difficulty getting their children to attend school (Barth, 1984).

Davies and Lee (2006) interviewed parents of children with problematic absenteeism to determine what factors contributed to the problem. Parents reported a lack of communication between home and school and mistreatment directed at the student and parent by school personnel. Attendance difficulties are also evident when a language barrier exists between parents and the school. Cultural differences, low family acculturation, and parental mistrust of school officials add to difficulties in communication between parents and the school (Franklin & Soto, 2002). Parenting factors are important to consider in school refusal behavior, and commonly stem from the larger context of family variables, as discussed next.

Family Factors

Family dynamics play a key role in children attending or refusing school. Homeless children frequently do not have access to transportation to school and have inadequate clothing and school supplies (US Department of Education, 2002). According to the US Department of Education (2002, 2004), only 87% of homeless youth are enrolled in school. Of those enrolled, approximately 23% do not attend school.

Family transitions such as parental separation or divorce, trauma, or illness may contribute to a student's nonattendance (Suveg et al., 2005). Family factors may also include chaotic home environment, child maltreatment, parental substance abuse, and socioeconomic status (Casas-Gil & Navarro-Guzman, 2002; Kearney, 2001; McCluskey, Bynum, & Patchin, 2004; McShane, Walter, & Rey, 2001; Taussig, 2002). Another key factor to consider in youth with school refusal behavior is the relationship between family members. Families of children with school refusal behavior commonly report high levels of isolation and conflict, overdependency, little interaction among family members, communication problems, and difficulty with family cohesion (Bernstein & Borchardt, 1996; Bernstein, Warren, Massie, & Thuras, 1999; Fergusson et al., 1995; Kearney & Silverman, 1995). Other researchers have reported conflict or disengagement in the parental relationship (Bryce & Baird, 1986). Youth from families that place low emphasis on activities outside of the home tended to have higher rates of absenteeism (Hansen, Sanders, Massaro, & Last, 1998).

Kearney and Silverman (1995) detailed specific family environments in youth with school refusal behavior. The first family type includes those with enmeshed parent-child relationships. These families typically include a mother that is overprotective and encourages the child to remain dependent upon her. The fathers in these families tend to be withdrawn and lack authority. The second type is a conflictive family dynamic, or those with high levels of aggression, noncompliance, and coercion. These families may experience physical aggression or verbal arguments. A lack of boundaries between parent and child may contribute to this dynamic (Reid, 1985). The third type involves detached families, or those that have little family interaction. Parents in these families do

not typically get involved in their child's activities or problems. The fourth family type is isolated families, which have limited contact with individuals outside of the family unit. Because these families engage in little interaction outside of the home, children in these families often do not receive necessary treatment for school refusal behavior. The fifth type is a healthy family environment. These families score higher than the average family on cohesion and expressiveness and are not conflictive. The final type is mixed families, where the family environment includes two or more of the aforementioned types (Kearney & Silverman, 1995).

Bernstein and Borchardt (1996) studied 134 youth with school refusal and examined family type and characteristics as well as symptoms of psychopathology. They divided families into mother-only and intact groups. Families of youth with school refusal had a higher rate of single-parent households (39%) than a control group (16.8%). Mothers in the single-parent group reported clinically significant scores on the role performance and communication subscales of the FAM. These elevations indicate difficulty in determining roles and boundaries as well as difficulty in communication between family members.

Bernstein and colleagues (1999) investigated the role of family dynamics in 46 anxious and depressed youth with school refusal aged 12-18 years and their parents. Youth in the study had missed at least 20% of school days in the 4 weeks prior to the study and had a diagnosis of at least one anxiety disorder as well as major depression. Sixty-three percent of youth and 52% of parents reported their families as disengaged. Fifty-two percent of youth and 38% of parents reported their families as rigid and lacking adaptability (Bernstein et al., 1999).

These studies indicate the importance of addressing family dynamics when treating youth with school refusal behavior. Youth spend a considerable amount of time with parents, siblings and other family members, with age they may spend more time with peers. The influence of peers on middle and high school youth with school refusal behavior is of particular importance and is discussed next.

Peer Factors

The influence of peer relationships on school attendance and behavior is well-documented. Hersov (1960b) found that 28% of students refuse school due to fear of ridicule or harm from peers. Granell de Aldaz and colleagues (1987) reported that 21.1% of youth are fearful of other children in school, which contributes to nonattendance. Approximately 20% of elementary school students reported missing school due to fear of bullying, and 6% of students reported missing school due to fear of being attacked by another student (Glew, Fan, Katon, Rivara, & Kernic, 2005; NCES, 2006). Davies and Lee (2006) found that students with problematic nonattendance reported bullying and feeling intimidated by peers as a primary reason not to attend school. McShane, Walter, and Rey (2001) similarly reported that 34% of youth with school refusal reported conflict with peers as a contributing factor to onset. Of those youth, 14% reported bullying as the primary problem. Victims of school violence and bullying are at increased risk for eventual school dropout (Janosz, LeBlanc, Boulerice, & Tremblay, 1997). Low-level school violence may include bullying, peer sexual harassment, harassment based on sexual preference, and psychological maltreatment of students by teachers (Dupper & Meyer-Adams, 2002).

Association with deviant peers and eventual school dropout are related (Farmer, Estell, Leung, Trott, Bishop, & Cairns, 2003; Fergusson & Horwood, 1998; Newcomb et al., 2002). This likely occurs because aggressive students enter school with poor social skills, which causes rejection by prosocial peers. These youth then befriend deviant peers and form peer groups with behavioral difficulties (Bagwell, Coie, Terry, & Lochman, 2000; Dishion, Patterson, & Griesler, 1994). Kearney and Silverman (1996) suggested that youth who do not receive adequate attention or reinforcement from parents might turn to deviant peer groups, which exacerbates school refusal behavior.

Other researchers suggest that peer groups influence absenteeism through the biases of attendance policies (Eckert, 1989; Hartnett, 2007). According to Eckert (1989), students fall into two groups in school: "jocks" and "burn-outs." Jocks are those involved in school-related extracurricular activities, and burn-outs are those who do not adhere to school policies. Attendance policies in many schools allow students in sports, musicals, and other school-related activities to miss classes for games and performances, but do not allow other students to miss similar amounts of school time for reasons they may feel are just as valid. This culture in schools may contribute to absenteeism in students who do not participate in school-related activities, as they feel there is unfair treatment among students with respect to absences (Hartnett, 2007). Furthermore, other researchers report that active participation in extracurricular activities is a protective factor against school nonattendance and dropout, whereas involvement in passive activities, such as watching movies or listening to music, is a risk factor (Janosz et al., 1997).

Youth in gangs or gang-related activities often display attendance problems (Kearney, 2001). These youth have a strong pressure from their peer group toward nonattendance and a push toward reinforcing activities outside of school such as drug use. Johnson, O'Malley, and Bachman (1988) found that (1) school commitment and (2) delinquency and drug use were inversely related. The current study investigated student interpersonal relationships as one subscale of school climate.

Child, parent, family, and peer factors often contribute to school refusal behavior. Many students, however, commonly report difficulty with something or someone directly related to the school. Early research on school refusal behavior focused primarily on individual factors, but the need for research at the systemic level is clear. To address this weakness, researchers have directed their attention to school climate and school factors in recent decades. The current study examined child report of school climate along with individual factors as they relate to absenteeism. School climate was an integral piece of the current study, and a review of related literature thus follows.

School Climate/School Factors

School safety, relationships in school, teaching and learning, and the external school environment are 4 factors that commonly define school climate (Cohen, McCabe, Michelli, & Pickeral, 2009). School climate focuses on the social interaction between students and teachers (Koth, Bradshaw, & Leaf, 2008). During middle school, student perceptions of school climate are related to not only relationships between students and teachers and peers, but also to student autonomy, the school's ability to provide schools rules and goals that are clear and consistent, classroom organization, and teachers' instructional methods (Roeser, Eccles, & Sameroff, 1990; Trickett, 1978; Virtanen et al.,

2009; Way, Reddy, & Rhodes, 2007). Many internal and external factors contribute to school climate. Internal and external variables include experiences with peers, school personnel, parental involvement in the school, and views on education. Parental attitude towards education often affects the child's attitude towards school. Researchers refer to a number of terms related to school climate, such as school connectedness. School connectedness is the degree to which students feel accepted, valued, respected and included at school. The term is synonymous with school engagement, school bonding, and school attachment (Shochet et al., 2006). Students who are more engaged in school academics have a tendency to become more engaged, whereas those who lack school academic engagement have a tendency to become less engaged with time (Skinner, Kindermann, Connell, & Wellborn, 2009). Engaged students also have higher grade point averages (Stewart, 2008).

The focus of school climate research has shifted over time. Early researchers focused on how school climate affects outcomes between schools and individual characteristics of the school (classes or teachers). Researchers in recent decades have focused on how school climate links to individual outcomes such as achievement, school crime, attachment, and school connectedness (Zullig, Koopman, Patton, & Ubbes, 2010). Academic achievement has been linked to school attachment, school commitment, association with positive peers, and parental school involvement (Stewart, 2008). A negative school climate also has been shown to increase psychopathology and decrease self-esteem (Hoge, Smit, & Hanson, 1990; Kasen, Johnson, & Cohen, 1990).

School climate research indicates that several factors are associated with absenteeism, including poor curriculum leading to student boredom, rigid discipline for

nonattendance, conflict between students and teachers, and disregard for cultural and diversity issues between families and teachers (Conroy, Conroy, & Newman, 2006; Guare & Cooper, 2003; NCES, 2006; Weisman & Gottfredson, 2001). Children report that relationships within the school environment commonly contribute to absenteeism, including fear of, or conflict with, a teacher (Bealing, 1990; Buist, 1980; Granell de Aldaz et al., 1987; Harte, 1994; Hersov, 1960b; Nielsen & Gerber, 1979). Males and females often report differences in relationship difficulties at school. Males are more likely to report problematic relationships with school staff as a contributing factor to nonattendance, whereas females report problematic relationships with peers as a contributing factor (Davies & Lee, 2006). School climate affects students as a whole, but perception of school climate occurs at an individual level (Cohen et al., 2009).

Berg (1992) suggested that identifying and examining problem areas within the school could lead to school improvements, which in turn could improve student attendance. The school climate literature does not include studies examining factors that maintain school refusal behavior, or how these factors may relate to perception of school climate and severity of absenteeism. The current study identified school climate risk factors for students in Clark County School District schools and examined how they related to severity of school refusal behavior, functions of school refusal behavior, and psychopathology in youth.

Power, Benn, and Morris (1972) investigated the role of neighborhood factors and school environment in males referred to the juvenile justice system. The study included male offenders aged 11-14 years who were adjudicated for crimes such as larceny, breaking and entering, traffic offenses, and attempted robbery. Schools with low rates of

first time offenders had many students living in high delinquency neighborhoods, and schools that had high rates of first time offenders had many students living in low delinquency areas. The researchers found no relationship between delinquent behavior and size of school, old versus new schools, voluntary school, and single-sex versus mixed school. Power and colleagues suggested that a school environment could counteract negative effects of a poor neighborhood and family environment and support growth in youth. More recently, a number of studies have focused on school climate and related variables. An overview of these studies is next.

Student perception of school factors and related variables. A key area of exploration in school climate literature is the student's perception of their school environment. The topic of how students perceive their school has been the subject of many investigations (Kuperminc, Leadbeater, Emmons, & Blatt, 1997; Modin & Ostberg, 2009; Wang, 2009; Wang, Selman, Dishion, & Stormshak, 2010). Students who feel less connected to their school environment report higher levels of anxiety and depressive symptoms (Shochet et al., 2006). School variables may account for as much as 19% of student's emotional functioning (Roeser et al., 1998).

Student perception of school climate and their behavioral symptoms tend to change over time. Wang (2009) examined social competence as a mediator between school climate and behavioral and psychological difficulties. Lower perceived school climate in 7th grade related to deviant behavior and depressive symptoms in 8th grade. Students reported a negative relationship between school factors such as promoting mastery goals, support of autonomy and discussion, and teacher emotional support and deviant behaviors and symptoms of depression. Students rated lack of teacher emotional

support as most related to deviant behavior and symptoms of depression. A subsequent 3-year study by Wang and colleagues (2010) examined the relationship between student perceptions of school climate and behavioral difficulties from 6th through 8th grade. The study focused on how student perception of school climate, including academics, school discipline, peer relationships, and student-teacher relationships, related to problem behaviors. Students' negative feelings about school increased over the 3-year period.

Way and colleagues (2007) also found that student perception of teacher and peer support significantly decreased each year from 6th to 8th grade. Perceptions of autonomy and clear and consistent school rules also decreased during middle school. As student's perceptions of the middle school environment (support, autonomy, and rule clarity) became increasingly negative, student levels of depression and behavior problems increased and self-esteem decreased (Way et al., 2007). Students in high conflict schools reported an increase in behavioral symptoms over time (Kasen et al., 1990). Youth with problematic behavior may be suspended to decrease distraction for other students. Students who are suspended, however, frequently face severe consequences that affect their own learning. These may include falling behind with work, failing classes, and failing for the year. Students with frequent suspension report poor relationships with teachers and school administrators (Brown, 2007).

Modin and Ostberg (2009) examined student psychosomatic symptoms with school climate factors. School factors such as student-teacher relations and harassment by peers accounted for 2.5% of the variance in student's psychosomatic symptoms, which became worse over a 2-year period. Negative interactions between students, such as student harassment, are the greatest contributors to psychosomatic symptoms. This study

examined important aspects of school climate and psychosomatic symptoms but did not examine other behavioral symptoms or school attendance. The current study examined how school climate affected school attendance and psychopathology variables, including anxiety, depression, somatic complaints, attention and cognitive problems, and oppositional behavior.

Brookmeyer and colleagues (2006) examined the effects of parental involvement and school climate on violent behavior in youth. The study included a large, diverse sample of 6,397 youth (mean age, 15.5 years) from 125 schools. The authors examined several school reported variables including attendance, school size, type of school (public or private), location (rural or suburban) and type of school (i.e., middle school, high school, or comprehensive school (K-12). Most participants (84.9%) attended 90% or more of school days, 45.3% of schools were medium in size (401-1000 students), 90.1% were public, 54.7% were suburban, and 45.9% were high schools. The authors hypothesized that youth who perceived high levels of parent and school connectedness would engage in less violent behavior than youth who perceived less parent and school connectedness.

Males reported more exposure to violence, committed more acts of violence, and were more connected to their parents than females. Older youth reported less connection with their schools and reported more exposure to violence, but committed less types of violence. Youth involved in acts of violence reported less connection to their parents and their schools. School climate was positively correlated to attendance and negatively correlated to dropout rates. Youth in larger schools and schools with larger class sizes reported a more negative school climate than youth in smaller schools and smaller classes

(Brookmeyer et al., 2006). This study adds important information to school climate research; however, the researchers did not consider additional externalizing behaviors such as other acts of delinquency, aggression, and rule-breaking behavior. These additional variables were examined in the current study, along with school climate. The current study also examined parent involvement in school as a potential variable affecting school refusal behavior and psychopathology.

Gender differences. Gender may be an important consideration when examining school climate and related behavioral difficulties. According to Kuperminc and colleagues (1997), males had higher self-reported and teacher-reported externalizing symptoms than females. Self-reported externalizing and internalizing symptoms decreased in males as perceived school climate increased. Male school climate perceptions explained a significant amount of variance in self-reported and teacher-reported internalizing and externalizing symptoms. Males also had more disciplinary referrals than females, but males that reported positive school climate ratings had less disciplinary referrals (Kuperminc et al., 1997). Way and colleagues (2007) found, at the start of middle school, that females reported less behavioral problems than males but had lower self-esteem and more symptoms of depression. Male rates of behavioral problems increased more dramatically than females during middle school. Females also reported significantly greater decreases in perceived peer support than males. Wang and colleagues (2010) provided further support for these behavioral differences. In a 3-year longitudinal study of student's school climate perceptions and behavioral difficulties, males reported significantly higher levels of behavioral problems than females, which

increased over time. Males were also more likely to drop out of the study prior to completion.

Kuperminc and colleagues (1997) found that females reported significantly more internalizing symptoms than males but that the two groups did not differ on teacher-reported internalizing symptoms. Females also reported stronger perceptions of school climate than males. As school climate ratings increased in females, self-reported externalizing symptoms decreased. This trend was not evident for reported internalizing symptoms. Higher school climate perception in females linked to higher self-worth (Kuperminc et al., 1997). Modin and Ostberg (2009) also found that females reported higher rates of internalizing symptoms (psychosomatic complaints) than males in the context of school variables. These results suggest that gender difference with respect to perceived school environment and internalizing and externalizing symptoms is an important variable to investigate. The current study analyzed gender as a potential moderator of school climate and attendance and school climate and psychopathology variables.

Ethnic and socioeconomic (SES) differences. Ethnic differences may also influence student's perception of school climate. Students in schools associated with high SES reported having more autonomy and less conflict at school than students in school associated with low SES (Kasen, Johnson, & Cohen, 1990). Students from low SES schools reported more oppositional behaviors and symptoms of attention deficit, conduct disorder, separation anxiety, and depression than students from high SES schools. Kuperminc and colleagues (1997) found that African American students had higher teacher-reported externalizing symptoms, disciplinary referrals, and poorer grades

than youth of other ethnic backgrounds. African American males with more negative school climate reports had the highest rates of externalizing symptoms (Kuperminc et al., 1997). According to Modin and Ostberg (2009), minority students reported an increase in psychosomatic symptoms over a 2-year period in relation to school climate variables.

Protective factors. Positive feelings about school climate may serve as a protective factor against psychological difficulties. Kuperminc and colleagues (2001) investigated how school climate and individual factors influence vulnerability to psychopathology in students in middle school. Positive feelings about school climate were related to lower levels of internalizing and externalizing symptoms. The relationship between self-criticism and internalizing behaviors and self-efficacy and internalizing behaviors was greater for students with negative feelings about school climate than students with positive feelings about school climate. Thus, a positive school climate may serve as a protective factor against internalizing symptoms in males and females. The relationship between self-criticism and externalizing behaviors was greater for individuals with negative school climate reports than individuals with positive school climate reports. This demonstrates that a positive school climate may also protect against externalizing symptoms. This relationship was stronger for males than females. School climate ratings accounted for 2% of variance in internalizing symptoms, but no individual subscales had significant results. School climate ratings also accounted for 7% of variance in externalizing symptoms (Kuperminc et al., 2001).

Wang (2009) noted that social competence in 7th grade mediated the relationship between school climate and psychological adjustment in 8th grade. Students who feel supported by teachers in school and have positive ways of interacting with peers have

less depression and deviant behavior. Modin and Ostberg (2009) further supported the notion that positive student-teacher interactions can serve as a protective factor. Students who felt teachers immediately responded to their need for help reported less psychosomatic symptoms. A 3-year study of school climate and behavior from 6th-8th grades revealed that positive perception about school climate related to lower levels of behavioral difficulties, with the lowest levels of behavioral difficulties reported in 6th grade. Students that reported positive school climate ratings in 6th grade were less likely to report behavioral problems in 7th and 8th grades. Positive ratings of student-teacher relationships and discipline and order protected most against future behavioral problems (Wang et al., 2010). Hopson and Lee (2011) reported that a positive perception of school climate related to less problem behavior and higher academic achievement. School climate moderated the relationship between family poverty and avoidance of problem behavior. Youth from high-poverty areas that perceived a positive school climate demonstrated behavior similar to youth in low-poverty areas.

Hoge and colleagues (1990) reported that higher ratings of school climate and positive feedback from teachers predicted self-esteem. Roeser and colleagues (1998) supported the notion that student perception of positive teacher regard related to improved emotional adjustment throughout middle school. Many studies of school climate have focused on middle school youth and have not included high school student's perception of school climate. The current study included both middle and high school students.

These studies reveal a strong influence of school climate on psychological symptoms. The researchers, however, did not examine how school climate and

internalizing and externalizing symptoms affect student attendance. The current study examined a large truancy sample to determine whether individual subscales of school climate contribute to severity of absenteeism. A review of research examining school factors as they specifically relate to school refusal behavior, or absenteeism, is next.

School factors and truancy/school refusal behavior. Researchers have begun to examine how school factors may affect student attendance (Brookmeyer et al., 2006; Corville-Smith et al., 1998; Henry & Huizinga, 2007; Roeser & Eccles, 1998). The following studies provided important implications for the current study by linking school factors to attendance. School characteristics were expected to influence the severity of absenteeism in the current study.

Corville-Smith and colleagues (1998) found that students with attendance difficulties tended to have lower self-concept and social competence. Truant youth also reported less family cohesion, parental acceptance and discipline, and higher parental control and family conflict. Truants also had negative feelings about school, relationships with school personnel, and a greater likelihood of antisocial behavior in the classroom. These results provide important implications for the overlap between factors that contribute to truant behavior, including school factors, individual characteristics (deviant behavior), parenting influence, and family factors (Corville-Smith et al., 1998). This study did not examine severity of absenteeism, individual subscales of school climate, or parent report of behavioral symptoms. The current study examined subscales of school climate, function of school refusal behavior, and psychopathology as well as severity of absenteeism. The inclusion of function of school refusal behavior adds a new

perspective that may guide treatments at Tier 2 and Tier 3 levels in a Response to Intervention approach to absenteeism.

Roeser and Eccles (1998) examined the developmental trajectory of school performance, perceived school environment, truancy, and psychopathology in middle school students. Females and African American youth placed more value in education than boys and Caucasian youth. Males reported more truant behavior (skipping class or school) than females. Over time, both genders reported an increase in truancy. Academic performance and valuing education showed a negative correlation to truancy and depression in 7th grade. Anger and depression symptoms correlated positively to truancy. Youth reported school factors, including positive teacher regard and provisions for autonomy at school, as positively correlated to academic self-concept. Youth who perceived positive regard in the school had less reported truant behavior and depression. Valiente and colleagues (2008) reported that the relation between children's attention and behavior in school and absenteeism was mediated by class participation and teacher-child relationships. Virtanen and colleagues (2009) also found that poor trust and opportunity for participation were associated with youth reported depression and physical and psychological symptoms. Truancy increased with perceptions of poor trust, low opportunity for participation, and feelings of not being heard. As clarity of school goals decreased, student truancy increased.

Henry and Huizinga (2007) examined 610 youth aged 7, 9, 11, 13, or 15 years with respect to school performance, feelings of social isolation at school, participation in extracurricular activities, educational goals, school safety, gang activity at school, positive teaching practices, positive student-teacher relationships, level of caring in the

school environment, and involvement with conventional or delinquent peers. Truancy was less severe in youth that did well academically, participated in extracurricular activities, and had high educational goals. Youth who indicated positive feelings about teaching practices in their school, had positive relationships with teachers, and associated with non-delinquent peers also had less severe truant behavior. Youth with higher rates of truancy reported feeling unsafe at school, had gang involvement at their school, and spent time with delinquent peers. School performance and association with delinquent or non-delinquent peers most strongly related to truancy (Henry & Huizinga, 2007).

Researchers have provided strong evidence for how the intricate relationships between individual, parent, family, peer, and school factors influence youth behavior, attendance, and perception of school. To date, no study has included a detailed examination of subscales of school climate along with individual subscales of parent and child reported psychopathology, function of school refusal behavior, and severity of absenteeism. Results could provide important implications for identification, assessment, and treatment of school refusal behavior at the school level.

Purpose of the Current Study

Researchers from various disciplines note the importance of examining school refusal behavior to prevent, assess, and treat affected youth. Approaches to examining models, characteristics, and contributing factors vary widely with little consensus. An examination of functions that maintain school refusal behavior has provided valuable information to increase understanding of this phenomenon and related factors (Hendron, 2010; Kearney, 2007; Kearney & Albano, 2004). To date, however, no study had

combined an examination of systemic factors, individual factors, and maintaining functions associated with school refusal behavior.

The current study involved 4 primary aims to investigate how perception of school climate influences absenteeism, function of school refusal behavior, and internalizing and externalizing symptoms. The first aim of the current study was to examine whether subscales of school climate contributed to severity of absenteeism in youth. Researchers have begun to focus on school climate and its effect on individual students (Corville-Smith et al., 1998; Green et al. 2012; Henry & Huizinga, 2007; Virtanen et al., 2009). School climate studies have investigated truant behavior; however, researchers had not examined severity of truancy via percentage of total days missed as in the current study. Researchers have reported differences in gender and age when examining aspects of truancy (Corville-Smith et al., 1998; Henry & Huizinga, 2007; Roeser & Eccles, 1998). The current study examined gender, age, severity of absenteeism and ethnicity differences between school climate and absenteeism.

The second aim of the current study was to examine whether function of school refusal behavior mediated the relationship between school climate and absenteeism. To date, no study had investigated the impact of functions of school refusal behavior on the relationship between school climate and absenteeism. Inclusion of functions could provide important implications for prevention, assessment, and treatment of absenteeism at the systemic level.

The third aim of the current study was to examine whether youth-reported subscales of school climate contributed to youth-reported psychopathology. The fourth aim of the current study was to examine whether youth-reported subscales of school

climate contributed to parent or guardian report of youth psychopathology. Researchers had examined school climate variables and psychopathology, which provided a foundation for the current hypotheses (Kuperminc et al., 1997; Kuperminc et al., 2001; Modin & Ostberg, 2009; Shochet et al., 2006; Wang, 2009; Wang et al., 2010). Many previous researchers have investigated psychopathology as "internalizing disorders" and "externalizing disorders." The current study aimed to provide a more detailed approach to this examination by including specific subscales of internalizing and externalizing disorders, including anxiety, depression, somatic symptoms, attention and cognitive problems, and oppositional behavior. Researchers had also noted differences between gender with respect to school climate and internalizing and externalizing symptoms. Gender, age, severity of absenteeism and ethnicity differences were expected in the relationships between school climate and absenteeism and school climate and psychopathology.

Henry and Huizinga (2007) stated that "effective prevention of truancy requires a thorough understanding of the characteristics that describe truant youth as well as factors that may put them at risk for truancy" (p. 505). This statement summarizes the need for a study to integrate the factors that maintain school refusal behavior with individual and school variables. No study had integrated all of these factors to determine whether a clear relationship exists between perception of school climate and severity of absenteeism, function of school refusal behavior, and psychopathology in youth.

Hypotheses

The current study examined 4 sets of primary hypotheses. Hypothesis 1 was that school climate variables would contribute to severity of absenteeism. Specifically,

Sharing of Resources, Order and Discipline, Parent Involvement, Student Interpersonal Relations, and Student-Teacher Relations, which are subscales of the School Climate Survey (SCS) (Emmons, Haynes, & Comer, 2002), were expected to contribute to percentage of school days missed. Previous research reveals a relationship between school climate and truancy (Corville-Smith et al., 1998; Henry & Huizinga, 2007; Roeser & Eccles, 1998; Sommer, 1985). If this original model displayed adequate goodness-of-fit, then subsequent examinations involved potential moderators of this model. These moderators (subhypotheses) are described next.

Hypotheses 1a, 1b, 1c, and 1d involved 4 potential moderators: gender, age, amount of absenteeism, and ethnicity. Hypothesis 1a was that the original model (see above) would have better fit for males than females. Hypothesis 1b was that the original model would have better fit for older (aged 14-19 years) than younger (aged 11-13 years) youth. Research reports gender and age differences with regard to truancy (Corville-Smith et al., 1998; Henry & Huizinga, 2007). Balfanz and Byrnes (2012) found that chronic absenteeism gradually increased during middle and high school through 12th grade. This provides evidence for age as a potential moderator in this study. Roeser and Eccles (1998) found that males reported more instances of truancy than females, as well as an increase in truancy with age. Males report problems with school staff as contributing to truancy, whereas females report problems with peers as contributing to truancy (Davies & Lee, 2006).

Hypothesis 1c was that the original model would have better fit for youth with greater absenteeism than youth with less absenteeism. Hypothesis 1d was that the original model would have better fit for Hispanic youth than non-Hispanic youth.

Hispanics have reportedly higher rates of absenteeism than European Americans and higher rates of dropout than African Americans and European Americans (Balfanz & Byrnes, 2012; NCES, 2010; Romero & Lee, 2007).

Hypothesis 2 was that the 4 functions of school refusal behavior as measured by combined child and parent report on the School Refusal Assessment Scale–Revised would mediate the relationship between (1) school climate subscales (SCS) and (2) percentage of absenteeism (the original model from Hypothesis 1). Kearney (2007) found that function of school refusal behavior mediated the relationship between forms of school refusal behavior and severity of school absenteeism. The model in the current study was examined as an extension of this finding to determine whether function also mediated school climate and severity of absenteeism.

The third set of hypotheses (3a-d) involved school climate variables as potential contributors to youth-reported psychopathology. Hypothesis 3a was that Sharing of Resources, Order and Discipline, Parent Involvement, Student Interpersonal Relations, and Student-Teacher Relations SCS subscales would contribute to Total Anxiety scale scores on the Revised Child Anxiety and Depression Scale (RCADS) (Chorpita, Yim, Moffitt, Umemoto, & Francis, 2000). Hypothesis 3b was that model 3a would have better fit for females than males. Hypothesis 3c was that Sharing of Resources, Order and Discipline, Parent Involvement, Student Interpersonal Relations, and Student-Teacher Relations SCS subscales would contribute to Depression scale scores on the RCADS (Chorpita et al., 2000). Hypothesis 3d was that model 3c would have better fit for females than males. Increased anxiety and depression have been linked to less connection with the school environment, low teacher and peer support, and decreased

student autonomy (Kuperminc et al., 1997; Shochet et al., 2006; Wang et al., 2010; Way et al., 2010).

The fourth set of hypotheses (4a-f) involved school climate variables as potential contributors to youth psychopathology as reported by their parent/guardian. Hypothesis 4a was that Sharing of Resources, Order and Discipline, Parent Involvement, Student Interpersonal Relations, and Student-Teacher Relations SCS subscales would contribute to Psychosomatic scale scores on the Conners Parent Rating Scale-Revised Long (CPRS-R:L) (Conners, Sitarenios, Parker, & Epstein, 1998). Hypothesis 4b was that model 4a would have better fit for females than males. Modin and Ostberg (2009) found that peer relationships influenced psychosomatic symptoms, but they did not examine the influence of other SCS scales. Hypothesis 4c was that Sharing of Resources, Order and Discipline, Parent Involvement, Student Interpersonal Relations, and Student-Teacher Relations SCS subscales would contribute to Cognitive/Attention Problems scale scores on the CPRS-R:L. Hypothesis 4d was that model 4c would have better fit for males than females.

Hypothesis 4e was that Sharing of Resources, Order and Discipline, Parent Involvement, Student Interpersonal Relations, and Student-Teacher Relations SCS subscales would contribute to Oppositional Scale scores on the CPRS-R:L. Hypothesis 4f was that model 4e would have better fit for males than females. Previous researchers have reported links between school climate and internalizing and externalizing symptoms (Kuperminc et al., 1997; Kuperminc et al., 2001; Modin & Ostberg, 2009; Shochet et al., 2006; Wang, 2009; Wang et al., 2010) but they did not provide a detailed analysis with respect to individual subscales of internalizing and externalizing symptoms. Gender

differences on self-reported internalizing and externalizing symptoms are apparent in earlier studies and were expected to be evident in the current study (Kuperminc et al., 1997; Modin & Ostberg, 2009; Wang et al,. 2010).

CHAPTER 3

METHODOLOGY

Participants

Total participants included 398 middle and high school students aged 11-19 years (*M* = 14.41; *SD* = 1.80 years). The median percentage of school days missed in this sample was 43%. Youths were Hispanic (66.9%), African-American (9.7%), European American (7.9%), other (6.9%), multiracial/biracial (4.6%), Asian-American (2.3%), and Native American (1.3%). Participants included 210 males (52.9%) and 187 females (47.1%) (one youth's gender was unreported). Most parent participants (57%) completed the assessment in English and 43% completed the assessment in Spanish. Families were recruited from the Clark County Family Courts and Services Center (n=255) and the Truancy Diversion Program in the Clark County School District (n=143).

Hypotheses 1(a-d) and Hypothesis 2. School climate, function, and absenteeism data were available for 79 middle and high school students aged 11-19 years (*M* = 15.22; *SD* = 1.84 years). The median percentage of school days missed among the sample was 32%. Youths were Hispanic (77.2%), African-American (7.6%), multiracial/biracial (5.1%), other (5.1%), Asian-American (3.8%), and European American (1.3%). Participants included 37 males (46.8%) and 42 females (53.2%). Correlations for parent and child agreement reported on the SRAS-P and SRAS-C, respectively, were significant and ranged from .26-.40.

Hypotheses 3(a-d). School climate and youth-reported psychopathology data were available for 151 middle and high school students aged 11-19 years (*M* = 14.98; *SD* = 1.93 years). The median percentage of school days missed among the sample was 32%.

Youths were Hispanic (73.2%), African-American (8.1%), other (6.7%), multiracial/biracial (4.7%), Asian-American (4.0%), and European American (3.4%). Participants included 78 males (51.7%) and 73 females (48.3%).

Hypothesis 4(a-f). School climate and parent-reported psychopathology data were available for 121 middle and high school students aged 11-19 years (M = 14.91; SD = 1.72 years). The median percentage of school days missed among the sample was 44%. Youths were Hispanic (74.4%), other (7.4%), African-American (5.8%), European American (4.1%), multiracial/biracial (4.1%), and Asian-American (4.1%). Participants included 60 males (49.6%) and 61 females (50.4%).

Qualitative Data. Responses to individual interview questions were available for 18 middle and high school students aged 11-19 years (M = 16.44; SD = 2.55 years). The median percentage of school days missed among the sample was 14.5%. Youths were Hispanic (66.7%), African American (11.1%), multiracial/biracial (11.1%), Asian (5.6%), and other (5.6%). Participants included 9 males (50%) and 9 females (50%).

Measures

Youth Measures

School Climate Survey Revised Edition (SCS) (Emmons, Haynes, & Comer, 2002). The SCS is a 42-item scale that measures a student's feelings about the school environment. The SCS measures 6 variables: Sharing of Resources, Order and Discipline, Parent Involvement, School Building, Student Interpersonal Relations, and Student-Teacher Relations. Sharing of Resources measures the level of equal opportunity for students to participate in school activities, as well as equality with respect to school material and equipment. Order and Discipline measures each student's level of

appropriate behavior in the school building. Parent Involvement measures how frequently a parent participates in school related activities. School Building measures the overall school appearance. Student Interpersonal Relations measures caring, respect, and trust between students. Student-Teacher Relations measures the level of caring, respect, and trust between students and teachers. Items are answered on a 5-point Likert scale from 1-5, where 1 = "strongly disagree" and 5 = "strongly agree." According to the Yale School of Medicine Child Study Center (2009), subscale reliability for this measure was acceptable, ranging from .62-.89. Cronbach's alpha for this study was .78.

School Refusal Assessment Scale-Revised-Child (SRAS-R-C) (Kearney, 2002b; 2006). The SRAS-R-C is a 24-item self-report measure that includes 6 questions relevant to each of 4 functions of school refusal behavior. The SRAS-R-C uses a 7-point Likert scale from 0 to 6 where 0= "never" and 6 = "always" (Kearney, 2002b). An item mean score is calculated for each of the 4 functions based on child and parent responses. The function with the highest item mean score is considered the primary variable maintaining a child's school refusal behavior (Kearney, 2002b).

The SRAS-R-C has demonstrated significant 7-14-day test-retest reliability for each of the 4 functions (.64, .73, .78, and .56, respectively). Concurrent validity was examined between all functional conditions in the original SRAS-C and the SRAS-R-C with a mean r = .68. Confirmatory factor analysis was used to examine the structure of the SRAS-R-C and investigate the validity of the four-factor model (two negative reinforcement factors and two positive reinforcement factors) (Kearney, 2006). Confirmatory factor analysis revealed that 22 of the 24 items supported the 4-factor model. With the weakest items removed (20 and 24), the model was supported, revealing

Cronbach's alphas of .82, .80, .87, and .74 for each of the 4 functions, respectively. Kearney (2006) recommended using caution when including items 18, 20, and 24. Confirmatory factor analysis supported the four-factor model of the SRAS-R-C and the functional model of school refusal behavior (Kearney, 2006). Cronbach's alpha for this study was .86.

Revised Child Anxiety and Depression Scale (RCADS) (Chorpita, Yim, Moffitt, Umemoto, & Francis, 2000). The RCADS is a 47-item measure of psychopathology in children and adolescents. The RCADS contains subscales for multiple anxiety disorders, including separation anxiety disorder (SAD), social phobia (SP), generalized anxiety disorder (GAD), obsessive-compulsive disorder (OCD), and panic disorder (PD), along with a scale for major depressive disorder (MDD). Items are answered on a 4-point scale from 0-3 (0 = "never," 1 = "sometimes," 2 = "often," and 3 = "always").

The RCADS was partly designed as a revision to a previous measure, the Spence Children's Anxiety Scale (SCAS; Spence, 1998). The new measure (RCADS) was designed to more closely relate to various DSM-IV anxiety disorders. Many (38) of the RCADS items were adopted from the SCAS. Seven items related to worry and 11 items related to major depression were also added (Chorpita et al., 2000).

Confirmatory factor analysis of the revised scale revealed 6 subscales: separation anxiety disorder, social phobia, obsessive-compulsive disorder, panic disorder, generalized anxiety disorder, and major depressive disorder. Test-retest reliability was found to be high over a 1-week period across all subscales: SAD ($\alpha = .78$); SP ($\alpha = 0.81$);

OCD (α = 0.71); PD (α = 0.85); GAD (α = 0.80); MDD (α = 0.76) (Chorpita et al., 2000). Cronbach's alpha for this study was .85.

Validity was examined via correlational studies with other measures of youth depression and anxiety: the Child Depression Inventory (CDI; Kovacs, 1992) and the Revised Manifest Anxiety Scale for Children (RCMAS; Reynolds & Richman, 1978). The Child Manifest Anxiety Scale-Revised (RCMAS) contains 3 subscales: physiological anxiety (RCMAS-P), worry and oversensitivity (RCMAS-W), and concentration anxiety (RCMAS-C) (Reynolds & Paget, 1983). The MDD subscale on the RCADS correlated most significantly with the CDI, more than any other subscale of the RCADS (r = .70). The RCADS-SP subscale was expected to correlate greater with the RCMAS-W and RCMAS-P subscales than the RCMAS-C subscale. This was partially supported in that the RCADS- SP subscale correlated more significantly with the RCMAS-W subscale than the RCMAS-C subscale, but not as significantly with the RCMAS-P subscale when compared to the correlation between the RCADS-SP subscale and the RCMAS-C subscale. The RCADS-GAD subscale also correlated highly with the RCMAS Total Anxiety Scale, as predicted. The results support the reliability, structural validity, and convergent and discriminant validity of the RCADS (Chorpita et al., 2000).

Other Measures

Interview Questions. Each participant was asked to complete an individually administered 2-question interview. Each student was taken to a private area and asked: (1) Why don't you come to school? and (2) What do you do when you are not at school? These questions allowed youth to provide open-ended responses regarding their absenteeism.

Percentage of Absenteeism. School staff provided a total number of absences for some participants. Percentage of absenteeism was calculated by dividing the total number of school days missed during the academic year by the total number of school days possible for that academic year (at the time of consent and data collection) and multiplying by 100. The median percentage of days missed for the entire sample was 43%. The sample was divided according to this median for some analyses.

Parent Measures

Conners Parent Rating Scale-Revised Long (CPRS-R: L) (Conners, Sitarenios, Parker, & Epstein, 1998). The CPRS-R: L is an 80-item parent report measure of the severity of a child's behaviors over the last month. The CPRS-R: L assesses symptoms of internalizing and externalizing behaviors in children and contains the following subscales: cognitive problems, oppositional, hyperactive-impulsive, anxious-shy, perfectionism, social problems, and psychosomatic (Conners et al., 1998).

The CPRS-R: L was originally tested on 2200 students aged 3-17 years in regular education classes whose parents completed the measure. Parents rated their children's behavior over the past month on a 4-point Likert scale: 0 = "not true at all," 1 = "just a little true," 2 = "pretty much true," 3 = "very much true." All subscales had high internal validity across all ages and genders. Coefficient alphas ranged from .75-.94 for males and .75-.93 for females. A 6-week test-retest evaluation yielded variable results across the subscales, ranging from .42-.78 (Conners et al., 1998). Cronbach's alpha for this study was .97.

School Refusal Assessment Scale-Revised-Parent (SRAS-R-P) (Kearney, 2002b; 2006). The SRAS-R-P is a 24-item self-report measure that includes 6 questions

relevant to each of 4 functions of school refusal behavior. The 4 functions of school refusal behavior include avoidance of stimuli that provoke a sense of general negative affectivity, escape from aversive social or evaluative situations, attention-seeking behavior, and pursuit of tangible reinforcement outside of school. The measure uses a 7-point Likert scale from 0-6 where 0= "never" and 6= "always" (Kearney, 2002b). A mean item score is calculated for each function based on child and parent responses. The function with the highest item mean score is considered the primary variable maintaining a child's school refusal behavior (Kearney, 2002b).

The SRAS-R-P has demonstrated significant 7-14-day test-retest reliability for each of the four functions (.63, .67, .78, and .61, respectively). Parent interrater reliability was found to be significant for 22 of 24 items, with a mean r = .54. Confirmatory factor analysis was used to examine the structure of the SRAS-R-P and to investigate the validity of the 4-factor model (two negative reinforcement factors and two positive reinforcement factors) (Kearney, 2006). Confirmatory factor analysis revealed that 21 of the 24 items supported the 4-factor model. With the weakest items removed (18, 20, and 24), the model was supported, revealing Cronbach's alphas of .86, .86, .88, and .78 for each of the four functions, respectively. Confirmatory factor analysis supported the 4-factor model of the SRAS-R-P and the functional model of school refusal behavior (Kearney, 2006). Cronbach's alpha for this study was .90.

Procedure

This study was conducted at the Clark County Truancy Court and Truancy Diversion Program. Clark County Truancy Court was held at the Clark County Family Court and Services Center in Las Vegas, Nevada. This court addresses truants in middle

and high school from the Clark County School District who have been given a truancy citation by school police for chronic absences. The number of absences prior to court referral varied for each student. Typically, after 3 unexcused absences from a single class or entire day of school, a letter is sent home to the child's parents. According to school district policy, a letter is sent home to the child's parents for each additional absence or truancy. After 3 truancy notices, a child is issued a truancy citation and ordered to report to truancy court. This procedure is a general guideline and may vary among schools.

Truancy court was in session on Tuesday, Wednesday, and Thursday afternoons, during which time data collection occurred. Students appeared before a judge with their parent(s) or guardian(s) to plead "guilty" or "not guilty" to truancy. If a student pled guilty, then the student was required to earn 100 points to graduate the truancy program. Points were earned on a weekly basis for various reasons such as perfect attendance, appropriate court attire, good grades, positive comments from teachers, and good home behavior. The truancy program required that the student appeared in court on Tuesday, Wednesday, or Thursday afternoon each week until 100 points were earned. The adolescents were required to keep daily attendance logs with teacher signatures for each class they attended each day. Some youth were assigned community service when deemed appropriate by the judge. When 100 points were earned, the youth was dismissed from the truancy program.

When sentenced to community service, the judge gave the parent and child the option to substitute 2 of the child's community service hours for participation in this project. This substitution was of equal value to community service. Participation in this project did not enable youths to fulfill all community service hours. Youths were

required to complete the remainder of their sentenced number of hours elsewhere. The project was IRB-approved (Protocol # 0511-1795).

If family members decided to complete the measures, then they were escorted outside the courtroom following sentencing. A trained undergraduate research assistant and the primary researcher explained the purpose of the study to the parent and adolescent. The parent was asked to sign an informed consent form and the child was asked to sign an assent form to participate in the program. Parents and youth voluntarily completed a de-identified packet of measures regarding the child's internalizing and externalizing behaviors, feelings about school, and school refusal behavior. Parents whose primary language was Spanish were permitted to complete Spanish-translated versions of the same questionnaires. Forty-five percent of parent/guardians completed Spanish-translated measures. The parent and child were free to decide that they do not wish to participate at any time and were then required to complete the full number of community service hours assigned by the judge. The process required 60-90 minutes. Spanish interpretation was available upon request. If questions or concerns arose, then the primary researcher and/or trained undergraduate research assistants were present. After completion of all measures, the parent/guardian and adolescent were given the required signature on their community service form to indicate participation. All data were coded anonymously and stored in a secure location.

Data collection also occurred at the Truancy Diversion Program. The Truancy Diversion Program is conducted by the Court Appointed Special Advocates (CASA) program. CASA designed the Truancy Diversion Program to address middle and high school students who were at risk for truancy citations based upon prior absences. The

program occurs in 11 middle and high schools where problematic absenteeism tends to occur. The school staff identifies 15-20 students who have poor attendance records. The program requires that the student and their parent or guardian meet before a judge on a weekly basis. The judges are volunteer legal professionals (attorneys or family court judges).

The truancy diversion program addresses attendance, grades, and other difficulties at home. Each student is required to earn 100 points to graduate the program. Points are earned on a weekly basis for various reasons, such as perfect attendance, appropriate court attire, good grades, positive comments from teachers, and good home behavior. The truancy program requires that the student appear each week until 100 points are earned. The adolescents are required to keep daily attendance logs with teacher signatures for each class they attend each day. When 100 points were earned, the youth were dismissed from the truancy program.

Each school is assigned a CASA advocate who will track each student's progress weekly. The schools also conduct 2 tutoring sessions and one group counseling session per week, which the students are assigned to attend. The parent/guardian and youth were given the opportunity to complete the measures during the program. Some participants completed packets at the start of the program, but due to the nature of the program's on-going enrollment, other participants completed packets after beginning the program. Unfortunately, the timing of completion was not available for data analysis. Participants were informed that their participation was voluntary and that there was little risk or benefit for participation. If the parent/guardian and student wished to participate, then they were given an explanation of the informed consent and assent. Parents and youth

voluntarily completed a de-identified packet of measures regarding the child's internalizing and externalizing behaviors, feelings about school, and school refusal behavior. Parents whose primary language is Spanish were permitted to complete Spanish-translated versions of the same questionnaires. Forty percent of parent/guardians completed Spanish-translated measures. Spanish interpretation was available upon request.

If a parent/guardian could not attend weekly meetings, then a parent permission slip was sent home. This allowed the child to complete the packet, but parent information was not available for these participants. The assessment process required 60-90 minutes. If questions or concerns arose, a graduate student and/or trained undergraduate research assistants were present. After completion of all measures, the parent/guardian and adolescent were thanked for their participation. All data were coded anonymously and stored in a secure location. This project is ongoing and is IRB approved (Protocol # 0801-2585).

Data Analyses

Continuous variables underwent Pearson correlational analysis (Table 3). The two variables that correlated most strongly (SRAS-R avoidance of stimuli that provoke negative affectivity (ANA) and SRAS-R escape from aversive social or evaluative situations (ESE)) were subjected to linear regression analyses with each as the dependent variable to examine multicollinearity. The two school climate variables that correlated most strongly (Student Interpersonal Relations and Student-Teacher Relations) were subjected to linear regression analyses with each as the dependent variable to examine multicollinearity. The variance inflation factor for each of the four analyses was 1, well

within the tolerable limit of 10 (Stevens, 1996). Multicollinearity among the variables was thus not considered problematic.

Hypotheses were tested via structural equation modeling (SEM) using EQS. SEM is preferable to more conventional regression approaches because it provides overall goodness-of-fit estimates, allows analysis of multiple variables, and minimizes measurement error (Bentler & Wu, 2005). Multiple indices of fit are typically recommended when conducting SEM (Kline, 2005). The present study utilized 3 goodness-of-fit indices for each model: comparative fit index (CFI), Bollen incremental fit index (IFI), and standardized root mean square residual (SRMR). Acceptable goodness-of-fit in the current study was defined as CFI and IFI values of .90+ and SRMR values of <.10 (Kline, 2005).

The present study used Holmbeck's (1997) multistep approach to testing mediation via SEM. First, the predictor-mediator-outcome (A→B→C) path was examined for adequate fit. If the A→B→C path displayed adequate fit, then the predictor-outcome (A→C) path was examined for goodness-of-fit. If the A→C path displayed adequate fit, then the A→B→C path was examined under two conditions: (1) when the A→C path was constrained to zero and (2) when the A→C path was not constrained to zero. For mediation to occur, the unconstrained model should not provide better fit than the constrained model. In other words, the addition of the A→C path should not improve the fit of the model. If these criteria were met, then mediation was assumed to occur.

The first set of hypotheses (1a-d) involved a model wherein school climate subscales (Sharing of Resources, Order and Discipline, Parent Involvement, Student

Interpersonal Relations, and Student-Teacher Relations) were expected to contribute to percentage of absenteeism. Hypothesis 1a involved model fit for males and females. Hypothesis 1b involved model fit for younger (aged 11-13 years) and older (aged 14-19 years) youth. Hypothesis 1c involved model fit for lower percentage of absenteeism ($\leq$ 43%) and higher percentage of absenteeism (>43%). Hypothesis 1d involved model fit for Hispanic and non-Hispanic youth. For each hypothesis, the models were evaluated for goodness-of-fit as described above.

The second hypothesis involved a model wherein functions of school refusal behavior were expected to mediate the relationship between (1) school climate subscales and (2) percentage of absenteeism. The mediational model was evaluated for goodness-of-fit as described above.

The third set of hypotheses (3a-d) involved a model wherein school climate subscales were expected to contribute to self-reported psychological symptoms. Hypothesis 3a involved model fit for school climate contributing to symptoms of anxiety. Hypothesis 3b involved model fit of 3a for males and females. Hypothesis 3c involved model fit for school climate contributing to symptoms of depression. Hypothesis 3d involved model fit of 3c for males and females. For each hypothesis, the models were evaluated for goodness-of-fit as described above.

The fourth set of hypotheses (4a-f) involved a model wherein school climate subscales were expected to contribute to parent-reported psychological symptoms. Hypothesis 4a involved model fit for school climate contributing to oppositional problems. Hypothesis 4b involved model fit of 4a for males and females. Hypothesis 4c involved model fit for school climate contributing to cognitive/attention problems.

Hypothesis 4d involved model fit of 4c for males and females. Hypothesis 4e involved model fit for school climate contributing to psychosomatic symptoms. Hypothesis 4f involved model fit of 4e for males and females. For each hypothesis, the models were evaluated for goodness-of-fit as described above.

CHAPTER 4

FINDINGS OF THE STUDY

General Comparisons

The sample was evaluated for differences between the two data collection sites. Age and severity of absenteeism were expected to differ due to the composition of the two samples and were not included in the analysis. Results of a MANOVA revealed nonsignificant results according to Hotelling's Trace ($F = 1.17$, $p = .31$).

The sample was evaluated for differences between preferred parent language, parent participants who completed measures in English and parent participants who completed measures in Spanish. Results of a MANOVA revealed nonsignificant results according to Hotelling's Trace ($F = 1.23$, $p = .26$).

Hypothesis Testing

Hypothesis 1

Hypothesis 1 was that school climate subscales (A) (Sharing of Resources, Order and Discipline, Parent Involvement, Student Interpersonal Relations, and Student-Teacher Relations) would contribute to absenteeism (B). The A→B path of the hypothesized model met goodness-of-fit criteria (CFI = 1.00, IFI = 1.00, SRMR = .05) (Figure 2). Hypothesis 1 was supported. This model was then examined across potential moderators (Hypotheses 1a-1d).

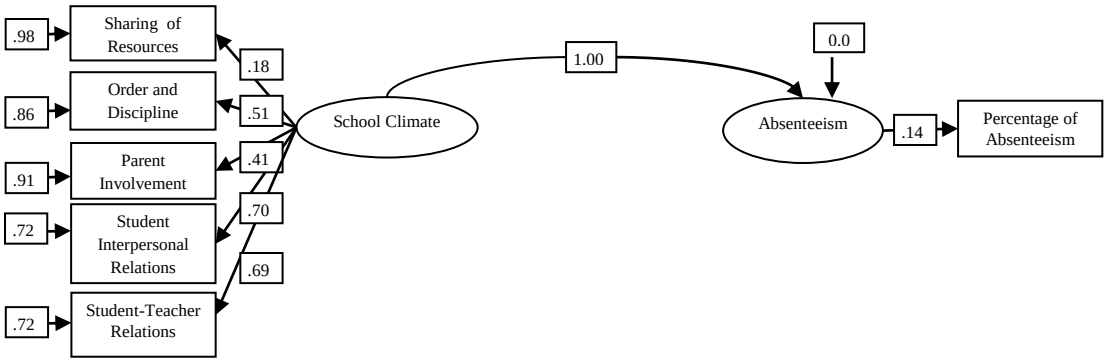


Figure 2. Structural equation model with path coefficients for school climate and absenteeism.

Hypothesis 1a was that the original model would have better goodness-of-fit for females than males. The original model did not meet goodness-of-fit criteria for males (CFI = .82, IFI = .87, SRMR = .10) or females (CFI = .85, IFI = .87, SRMR = .10). Hypothesis 1a was not supported.

Hypothesis 1b was that the original model would have better goodness-of-fit for older (age 14-19 years) than younger (age 11-13 years) youth. The original model did not meet goodness-of-fit criteria for younger youth (CFI = .67, IFI = .72, SRMR = .11) but did meet criteria for older youth (CFI = .91, IFI = .93, SRMR = .08). Hypothesis 1b was supported.

Hypothesis 1c was that the original model would have better goodness-of-fit for youth with higher absenteeism (>43%) than youth with less absenteeism ($\leq$ 43%). The original model met goodness-of-fit criteria for youth with less absenteeism (CFI = .96, IFI = .97, SRMR = .08) and for youth with greater absenteeism (CFI = .97, IFI = .97, SRMR = .09). Hypothesis 1c was not supported.

Hypothesis 1d was that the original model would have better goodness-of-fit for Hispanic youth than non-Hispanic youth. The original model did not meet goodness-of-fit criteria for Hispanic youth (CFI = .80, IFI = .84, SRMR = .09) or non-Hispanic youth (CFI = .78, IFI = .80, SRMR = .12). Hypothesis 1d was not supported.

Hypothesis 2

Hypothesis 2 was that the original model of (1) school climate subscales contributing to (2) percentage of absenteeism would be mediated by the combined child and parent-reported functions of school refusal behavior. The A→B→C path of the hypothesized model met goodness-of-fit criteria (CFI = 1.00, IFI = 1.00, SRMR = .07). The A→C path of the hypothesized model met goodness-of-fit criteria (CFI = 1.00, IFI = 1.00, SRMR = .05). In addition, the constrained A→B→C path of the hypothesized model met goodness-of-fit criteria (CFI = .99, IFI = 1.00, SRMR = .07) and was not significantly different from the unconstrained model. Hypothesis 2 was supported.

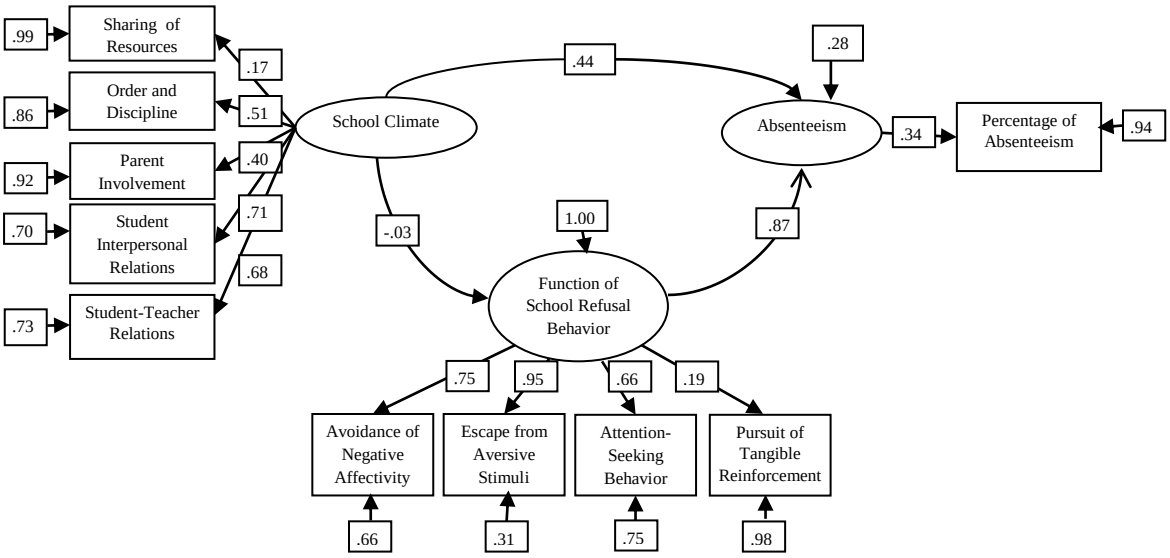


Figure 3. Structural equation model with path coefficients for function of school refusal behavior, school climate and absenteeism.

Hypothesis 3(a-d)

Hypothesis 3a was that school climate (A) (Sharing of Resources, Order and Discipline, Parent Involvement, Student Interpersonal Relations, and Student-Teacher Relations) would contribute to anxiety symptoms in youth (B). The A→B path of the hypothesized model met goodness-of-fit criteria (CFI = .92, IFI = .92, SRMR = .05). Hypothesis 3a was supported.

Hypothesis 3b was that model 3a would have better goodness-of-fit for females than males. The original model met goodness-of-fit criteria for males (CFI = .99, IFI = .99, SRMR = .05) but not for females (CFI = .84, IFI = .86, SRMR = .09). Hypothesis 3b was not supported.

Hypothesis 3c was that school climate (A) (Sharing of Resources, Order and Discipline, Parent Involvement, Student Interpersonal Relations, and Student-Teacher Relations) would contribute to depression symptoms in youth (B). The A→B path of the hypothesized model met goodness-of-fit criteria (CFI = .92, IFI = .93, SRMR = .05). Hypothesis 3c was supported.

Hypothesis 3d was that model 3c would have better goodness-of-fit for females than males. The original model met goodness-of-fit criteria for males (CFI = .92, IFI = .93, SRMR = .06) but not for females (CFI = .82, IFI = .84, SRMR = .09). Hypothesis 3d was not supported.

Hypothesis 4(a-f)

Hypothesis 4a was that school climate (A) (Sharing of Resources, Order and Discipline, Parent Involvement, Student Interpersonal Relations, and Student-Teacher Relations) would contribute to somatic symptoms in youth (B). The A→B path of the

hypothesized model did not meet goodness-of-fit criteria (CFI = .82, IFI = .83, SRMR = .07). Hypothesis 4a was not supported and so Hypothesis 4b (gender moderation) was not tested.

Hypothesis 4c was that school climate (A) (Sharing of Resources, Order and Discipline, Parent Involvement, Student Interpersonal Relations, and Student-Teacher Relations) would contribute to cognition and attention problems in youth (B). The A→B path of the hypothesized model did not meet goodness-of-fit criteria (CFI = .87, IFI = .88, SRMR = .07). Hypothesis 4c was not supported and so Hypothesis 4d (gender moderation) was not tested.

Hypothesis 4e was that school climate (A) (Sharing of Resources, Order and Discipline, Parent Involvement, Student Interpersonal Relations, and Student-Teacher Relations) would contribute to oppositional behavior in youth (B). The A→B path of the hypothesized model did not meet goodness-of-fit criteria (CFI = .82, IFI = .83, SRMR = .07). Hypothesis 4e was not supported.

Hypothesis 4f was that model 4e would have better fit among males than females. The 4e model did not meet goodness-of-fit criteria; however, hypothesis 4f was investigated on an exploratory basis. The model met goodness-of-fit criteria for males (CFI = .93, IFI = .94, SRMR = .07) but not for females (CFI = .72, IFI = .75, SRMR = .84). Hypothesis 4f was supported.

Exploratory Qualitative Data

A small number of participants (18 youths) completed an individual interview with two questions; (1) Why don't you come to school? and (2) What do you do when you're not at school? Responses were analyzed and categorized into groups based upon similarity. Responses to the first question were in 3 general categories: individual factors

that affected absenteeism (61%), school factors that affected absenteeism (22%), and a combination of individual and school factors that affected absenteeism (17%). Individual factors included feeling sick (28%), trouble waking up and lack of motivation to attend (39%), and other factors such as not having a ride to school after waking up late and having to babysit for a family member (11%). School factors included having trouble with teachers (17%), being suspended (6%), being bullied (6%), having trouble dealing with the behavior of other students (6%), and not understanding class material (6%).

Responses to the second question were also in 3 general categories: youth who remained at home when not attending school (78%), youth who left the house and pursued tangible reinforcement outside of school when not attending school (11%), and youth who reported a combination of staying home and leaving home (11%). Youth who stayed home generally reported that they were sleeping or helping with chores in the house. Youth who left the house generally reported that they were out with friends. Nearly one-third (28%) of youth remarked that at least one parent was at home (aware of their absence) when they stayed home from school.

CHAPTER 5

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

Discussion of Results

This investigation involved the relationship between school climate, absenteeism, function of school refusal behavior, and psychopathology in a community sample of 398 truant youth and their parent or guardian. Recruitment occurred at two settings: a truancy court and a truancy diversion program. Youths reported their views of school climate and youths and their parents reported the function of the youth's school refusal behavior as well as psychological symptoms on separate measures.

The current study had four sets of hypotheses. The first set of hypotheses was that school climate would contribute to absenteeism in truant youth. Gender, age, amount of absenteeism, and ethnicity were expected to moderate this relationship. The second hypothesis was that the relationship between school climate and absenteeism would be mediated by functions of school refusal behavior. The third set of hypotheses was that school climate would contribute to youth-reported psychopathology, including anxiety and depression. The fourth set of hypotheses was that school climate would contribute to parent-reported psychopathology in their children, including somatic symptoms, cognitive and attention problems, and oppositional behavior.

Model of School Climate and Severity of Absenteeism

The first aim of the study was to evaluate a model whereby school climate subscales (Sharing of Resources, Order and Discipline, Parent Involvement, Student Interpersonal Relations, and Student-Teacher Relations) contributed to level of absenteeism. Results supported this hypothesis but did not provide a definitive picture

about how the interplay of the five subscales contributed to absenteeism. These results provide implications for the role of school climate in the severity of absenteeism.

Sharing of Resources. Sharing of Resources is a measure of student opportunity and access to school resources. Low opportunity for participation and lack of student autonomy within the school is linked to truancy (Green et al., 2012; Roeser & Eccles, 1998; Virtanen et al., 2009). Students who feel that their presence in the classroom is not recognized or respected through equal opportunity may avoid school due to feeling insignificant. School climates that do not facilitate collaboration and opportunities for students to engage in learning may also contribute to poor communication, tension, and competition between students. Tension that results from certain students receiving more opportunities than others may then lead to poorer interpersonal relationships between students and poorer relationships between students and teachers. Results demonstrated that Sharing of Resources and Student-Teacher Relations relate strongly to one another. Students who are not given equal opportunities may receive lower grades, which have been associated with absenteeism in the past (Moos & Moos, 1978). Results of the current study suggest that Sharing of Resources is one of five school factors that may contribute to absenteeism and may affect relationships within the school environment.

Order and Discipline. Order and Discipline is a measure of appropriateness of student behavior in school. Poor behavior of peers may affect the opportunity of others to learn. Student behavior that is disruptive or imposes upon other's ability to learn may lead to frustration, boredom, and disinterest in other students. Students who feel bored or as though they obtain no benefits from attending class due to the behavior of peers may be prone to missing individual classes or entire days of school. Youth in previous studies

reported that feeling unsafe and having gang involvement at their school contributed to their truancy (Henry & Huizinga, 2007). Youth with poor school behavior may lack insight into their disruptive behavior and its effect on other students, which could affect their interpersonal relationships. Past researchers have indicated that truant youth demonstrate antisocial behavior in the classroom (Reid, 1984). Peer behavior may also have influenced participant's perceptions of interpersonal relationships in the school environment. Results demonstrated that Order and Discipline and Student Interpersonal Relations as well as Order and Discipline and Student-Teacher Relations were strongly related. Results of the current study suggest that Order and Discipline may be one of five school factors that contribute to absenteeism and may affect relationships within the school environment.

Parental Involvement. Parental Involvement is a measure of how frequently parents participate in school activities. Truant youth have a greater incidence of living in single-parent families where parents spend more hours working outside of the home and are not available to participate in school activities. Single-parent families also report less communication among family members (Bernstein & Borchardt, 1996; Douthitt, 1989). These factors may lead to parents being unaware and unavailable to participate in school activities. Parental supervision is highly important in ensuring that students attend and engage in school and school-related activities. Parents who do not ensure that their children attend school may face fines and charges of educational neglect. Youth who believe that their parents do not place a strong emphasis on educational attainment may not feel inclined to attend school. Children may not find value in attending school if their parents do not recognize the child's academic efforts. Parental involvement has been

linked to higher academic achievement (Stewart, 2008). Parents who are not involved in school may also be less involved in their child's lives and may be inconsistent in disciplining youth. Youth who do not fear consequences of nonattendance may be more apt to continue being truant. Children with less parental involvement and low levels of parental supervision have more freedom to be truant from school. The relationship between parental involvement in school activities and attendance is therefore a crucial one. Results of the current study suggest that Parental Involvement may be one of five school factors that contribute to absenteeism.

Student Interpersonal Relations. Student Interpersonal Relations is a measure of the level of care and respect between students. Researchers have reported that students miss school due to fear of ridicule or harm from other peers, fear of other students, and intimidation by peers or fear of bullying (Davies & Lee; 2006; Glew et al, 2005; Granell de Aldaz et al., 1987; Hersov 1960b; NCES, 2006). Victims of bullying may miss school due to safety concerns, to avoid aggressive peers, and to decrease stress related to negative interactions with peers. Males and females may experience and interpret social aspects of student interpersonal relations differently. Females report interpersonal difficulties with other students as a stronger contributor of absenteeism than males (Davies & Lee, 2006). Fear of other students or poor relationships with other students may deter youth from attending school. Females tend to be more susceptible to suffer more severe internalizing symptoms. Similarly, females may be more affected by bullying and other effects of having poor interpersonal relationships with peers. Students, especially females, may internalize feelings of rejection that could lead to poor self-esteem and could be reflected in negative perceptions of school climate. Results of

the current study suggest that Student Interpersonal Relations may be one of five school factors that contribute to absenteeism and may affect relationships within the school environment.

Student-Teacher Relations. Student-Teacher Relations is a measure of the level of care and respect between students and teachers. Students spend a considerable amount of time in school with teachers as their primary role models. Relationships with teachers have been found to strongly influence individual student factors. Fear of, or conflict with, a teacher has been strongly indicated in absenteeism and psychological symptoms (Bealing, 1990; Buist, 1980; Granell de Aldaz et al., 1987; Harte, 1994; Hersov, 1960b; Modin & Ostberg, 2009; Nielsen & Gerber, 1979; Wang et al., 2010). Males report difficulties with school staff as a stronger contributor to absenteeism than females (Davies & Lee, 2006). Males tend to have higher rates of externalizing behavior, especially oppositional behavior. Teachers may respond unfavorably to males with poor behavior. In response, males may continue to exhibit more severe forms of behavior. This interaction would likely encourage males to stop attending classes with particular teachers or to miss the entire school day. Students who have poor relationships with teachers may feel that their interpersonal relationships with teachers will negatively impact their grade. Students may miss school if they feel that attending class will not improve their grade because their relationships with teachers are poor. This relationship could also lead males to have more negative perceptions of school climate. Nearly one-fourth of participants in the study indicated that difficulties with teachers contributed to their absenteeism. Results of the current study suggest that Student-Teacher Relations may be one of five school factors that contribute to absenteeism.

The present findings suggest the importance of school climate variables and their potential impact on absenteeism. A substantial drawback of the school climate and absenteeism literature is that no clear model of these variables exists. Results of the current study support the notion that some combination of school climate variables may contribute to absenteeism at a systemic level. Further work will be needed to more fully address the interplay of these factors and how they specifically relate to absenteeism.

Analysis of Moderator Variables

Subsequent evaluations of the model of school climate and absenteeism included analyses to determine the impact of demographic variables (gender, age, and ethnicity) and amount of absenteeism. Gender, age, and ethnicity have been examined in previous studies, many of which reported differences between the groups (Balfanz & Byrnes, 2012; Fergusson et al., 1995; Hansen et al., 1998; NCES, 2006; 2010; Romero & Lee, 2007). This study examined percentage of days of school missed instead of simply examining students placed in absenteeism categories, as in previous studies (Berg et al., 1993; Egger et al., 2003; Galloway, 1983; Sommer, 1985). This addition provides important information about how severity of absenteeism could potentially affect youth.

Gender. The original model was expected to have better fit for males than females. Results did not support this hypothesis. Research examining gender differences among truant youth has generally found equal rates in males and females (Balfanz & Byrnes, 2012; Fergusson et al., 1995; Fremont, 2003; Hansen et al., 1998; Kearney & Albano, 2004). Males reported poorer perceptions of school climate in previous studies, which led to the hypothesis that the model would be more strongly supported for males

(Kuperminc et al., 1997). The results, however, suggest that model fit did not differ for males and females.

Age. The original model was expected to have better fit for older (14-19 years) than younger (11-13 years) youth. Results supported this hypothesis. These results support the role of age as a moderator variable between school climate and severity of absenteeism. Previous researchers suggested that level of absenteeism increases with age (Balfanz & Byrnes, 2012; Fergusson et al., 1995; Hansen et al., 1998; NCES, 2006). This finding may also be a result of older youth being able to more accurately report feelings and views about school climate. Older adolescents may have stronger feelings about school due to more years of education and experience within the school environment. Older adolescents may also be more aware of how the behavior of other students affects them and may have a heightened awareness of peer and student-teacher relationships.

Percentage of Absenteeism. The original model was expected to have better fit youth with higher percentage of absenteeism (>43%) than youth with lower percentage of absenteeism (≤ 43%). Results did not support this hypothesis. The finding suggests that the original school climate model holds for various levels of absenteeism. Previous studies concentrated on truants versus non-truants or other related categories but did not examine levels of severity of absenteeism, as in the current study (Berg et al., 1993; Egger et al., 2003; Galloway, 1983; Sommer, 1985). This result suggests that model fit did not differ for youth with lower absenteeism and youth with higher absenteeism.

Ethnicity. The original model was expected to have better fit for Hispanic than non-Hispanic youth. Results did not support this hypothesis. Hispanics reportedly have

slightly higher rates of absenteeism than nonminority students (Balfanz & Byrnes, 2012; NCES 2010; Romero & Lee, 2007). Minority students generally have higher rates of dropout than nonminority students (Egger et al., 2003; Kearney, 2008a; NCES, 2006). The present study, however, indicated that the original model of school climate and absenteeism was not impacted by ethnicity. This result suggests that model fit did not differ for Hispanic youth and non-Hispanic youth.

The Role of Function of School Refusal Behavior

The second aim of this study was to evaluate function of school refusal behavior as a mediator of school climate and absenteeism. Results supported this hypothesis. These results provide important implications for the function of school refusal behavior and absenteeism. This hypothesis was based on previous research by Kearney (2007), which determined that function of school refusal behavior mediated the relationship between form of behavior and severity of absenteeism. Findings provide evidence of the notable role of function in the relationship between school climate and absenteeism. This study further supports the utility of the School Refusal Assessment Scale–Revised (SRAS-R) when examining severity of absenteeism.

Previous research on school refusal functions have occurred primarily in clinical studies (Kearney, 2007; Kearney & Albano, 2004). Results from the current study indicate that function of school refusal behavior has a clear impact on the relationship between school climate and absenteeism. Functions of school refusal behavior may account for some areas within school climate that the youth finds concerning. Areas within school climate mentioned in the SRAS-R include specific stimuli within the school, such as an aversive class, peer, or teacher. The SRAS-R also inquires about

friendships in school, feelings of anxiety and depression in school, preference to be with family instead of at school, and stress related to evaluative situations. The additional information obtained by including an analysis of functions of school refusal behavior provides specific areas of school climate that may prevent youths from attending school, which also contributes to absenteeism. The addition of function, therefore, provides a change in the relationship between school climate and absenteeism.

School Climate and Psychopathology

The third aim of the present study was to evaluate a model of subscales of school climate (Sharing of Resources, Order and Discipline, Parent Involvement, Student Interpersonal Relations, and Student-Teacher Relations) contributing to youth-reported psychopathology. School climate was expected to contribute to anxiety symptoms in youth. Results supported this hypothesis. The model was expected to have better fit for females than males. Results did not support this hypothesis. School climate was also expected to contribute to depression symptoms in youth. Results supported this hypothesis. The model was expected to have better fit for females than males. Results did not support this hypothesis.

School climate is associated with absenteeism and psychopathology, but no clear model of these relationships has been developed (Berg et al., 1985; Bernstein & Garfinkel, 1986; Bools et al., 1990; Egger et al., 2003; Galloway, 1983; Hoge et al., 1990; Kasen et al., 1990; Kearney & Albano, 2004; Last & Strauss, 1990; McShane et al., 2001). Researchers remain unclear whether psychological symptoms lead to school refusal behavior or if absenteeism precedes these conditions (Kearney, 2008b). Students who report feeling less connected with their school environment endorse more symptoms

of anxiety and depression (Shochet et al., 2006). Results from the current study indicated a significant negative relationship between anxiety and depression and Student Interpersonal Relations and Student-Teacher Relations. This indicates that perceiving poor relationships with others in the school environment could contribute to absenteeism. Students may internalize feelings of isolation, lack of empathy, understanding, and interest by students and teachers, which may increase feelings of anxiety and depression. Roeser and colleagues (1998) reported that feelings about school climate could account for nearly one-fifth of student's emotional functioning. Gender differences were expected to be evident across the model. Prior researchers reported that females endorsed higher rates of depression at the start of middle school, which increased over time, and males endorsed higher rates of behavioral problems at the start of middle school, which increased over time (Wang et al., 2010; Way et al., 2007). The current study revealed an interesting trend, such that the model had better fit for males. This may imply that males in the truancy programs were benefiting from the individualized attention of the programs, which may have led to greater insight into internalizing symptoms reported on the study measures. Results from the current study indicate that perception of school climate contributes to severity of absenteeism and youth-reported psychological symptoms among males and females.

The fourth aim of the present study was to evaluate a model of subscales of school climate (Sharing of Resources, Order and Discipline, Parent Involvement, Student Interpersonal Relations, and Student-Teacher Relations) contributing to youth psychopathology as reported by their parent or guardian. School climate was expected to contribute to parent-reported somatic symptoms in youth. Results did not support this

hypothesis. School climate was also expected to contribute to parent-reported cognition and attention problems in youth. Results did not support this hypothesis.

Bernstein and colleagues (1997) found that nearly one-third of adolescents in a school refusal study reported five or more somatic symptoms. The current study did not examine the prevalence rate of somatic symptoms within the sample, as this was out of the scope of this study. Parents of youth may be less aware of the somatic symptoms that their child experienced on a regular basis. Youth report of these symptoms was not available and would have provided important information about whether models of self- and parent-reported somatic symptoms differ. Negative interactions between students are the greatest predictor of psychosomatic symptoms, but parents may not be aware of student's interactions with peers in school and the somatic symptoms that result from such interactions (Modin & Ostberg, 2009). Kasen and colleagues (1990) reported higher levels of attention deficit disorder in youth from schools associated with low socioeconomic status (SES). Students in the current study were expected to follow this trend, though SES was not measured. Parent involvement likely plays a key role in student's school success. The current study also indicates the importance of parent involvement in school-related activities as a contributor to absenteeism.

School climate was also expected to contribute to parent-reported oppositional behavior in youth. Results did not support the hypothesis. Gender, however, was examined on an exploratory basis. The model had acceptable fit for males but not for females. This model was examined on an exploratory basis because past literature on truancy and externalizing behavior, including conduct and oppositional symptoms,

generally reveals a higher incidence in males than females (Bools et al., 1990; Galloway, 1983; Lahey et al., 1999).

These results may suggest that parents of school refusing youth tend to be less involved in their child's schooling and their perception of their child's symptoms and attitude towards school may largely vary from their child's report. Parents of truant youth may have poor involvement in school activities (Astone & McLanahan, 1991; Guare & Cooper 2003). Parents may also have been cautious when reporting symptoms, as they may have felt that (despite confidentiality) their report could have some influence on their child's progress or success in the truancy court or diversion program. As the current study's results suggest, poor parental involvement can contribute to absenteeism.

Exploratory Qualitative Data

Student motives for missing school were in several identifiable categories. Reasons for missing school included individual and school factors. Primary individual factors included feeling sick and lack of motivation. These motivating factors may be linked to somatic and oppositional behavior symptoms, which have been associated with absenteeism in previous studies. Other factors included problems with teachers, poor behavior of peers, and difficulty maintaining work. Youth report of their whereabouts when not in school included staying home and spending time with friends. This trend is similar to earlier attempts to identify school refusers from truants, based upon their whereabouts and parental awareness of their absences. The reported individual and school factors may be linked to school climate factors, which the current study has found to contribute to absenteeism.

Clinical Implications

Assessment

School refusal research in community settings is limited, especially with respect to school climate, absenteeism, psychopathology, and function of school refusal behavior. This study revealed the importance of assessing these variables and provided support for utilizing brief assessment measures to do so. A Response to Intervention approach to assessment should be considered, implementing assessment at a Tier 1 (broad, school level), Tier 2 (small, at-risk level), and Tier 3 (individualized) levels.

School officials should assess and monitor attendance for all students on a daily basis. School officials should then determine a cut-off for deeming a student as "at-risk" for problematic attendance and another for deeming students as having chronic absenteeism. Kearney (2008a; 2012) suggested that this be determined by, "youth who (1) have missed at least 25% of total school time for at least 2 weeks, (2) experience severe difficulty attending classes for at least 2 weeks with significant interference in a youth's or family's daily routine, and/or (2) are absent for at least 10 days of school during any 15-week period while school is in session, with an absence defined as 25% or more of school time missed" (p.24). Students in the "at-risk" category should be assessed and treated immediately to prevent onset of chronic absenteeism. The model of school climate contributing to absenteeism did not vary by severity of absenteeism. This suggests that monitoring absenteeism alone would be less informative than measuring function and school climate in addition to attendance data.

School climate is an important variable to consider when addressing absenteeism and psychological symptoms. At Tier 1, all students could complete the School Climate

Survey on a quarterly basis in a predetermined class. Student views of school climate could be assessed regularly, which could allow for student concerns to be addressed and may prevent or decrease student absenteeism through school improvement. Students in Tier 2 could complete the School Climate Survey on a more frequent (monthly) basis. If students in the small group complete the scale together, then more specific concerns of these students could be addressed and improved to facilitate better attendance. Finally, students with chronic absenteeism (Tier 3) could be assessed more often to provide important information for individual treatment planning. School officials could also use open-ended questions so students can provide written responses regarding areas of school climate that they feel need improvement. Students at Tier 1 could be assessed via written responses to questions in a large group format. Students at Tier 2 and Tier 3 could be assessed through individualized interviewing, which would allow for follow-up questions. Monitoring perception of school climate throughout the academic year for all students could provide important information for preventative strategies and treatment implementation.

Results strongly supported that function of school refusal behavior contributes to severity of absenteeism. The School Refusal Assessment Scale–Revised is a short assessment measure that could be completed in a brief period of time. This scale could provide valuable information regarding student motives that reinforce absenteeism as well as suggest an estimate of severity of absenteeism based on function averages, which contribute to absenteeism according to results of the current study. Students at Tiers 2 and 3 could individually complete the SRAS-R along with a parent or guardian. This would allow the individual's most salient function to be determined. Each function is

associated with prescriptive treatment strategies, which could be implemented to treat students in a small group (Tier 2) or individual (Tier 3) format (Kearney, 2012). The SRAS-R has also been linked to specific symptom sets in previous clinical and community studies (Hendron, 2010; Kearney & Albano, 2004) and could indicate potential clinical symptoms. These symptoms could later be targeted in the treatment phase. This screening process would enable clinicians to have a general idea of the clinical picture and severity of a case.

Many researchers have provided evidence that psychological symptoms are highly related to absenteeism and school climate (Berg et al., 1985; Bernstein & Garfinkel, 1986; Bools et al., 1990; Egger et al., 2003; Galloway, 1983; Hog et al., 1990; Kasen et al., 1990; Kearney & Albano, 2004; Last & Strauss, 1990; McShane et al., 2001). Measures of psychological symptoms should thus be administered. Measures such as the Revised Children's Anxiety and Depression Scale or the Youth Self-Report would provide information on internalizing and externalizing symptoms. These measures could be administered in a large group (Tier 1) to measure overall student mental health. Students at Tier 2 and Tier 3 could complete the measure in a small group or individually so that school officials and treatment professionals could address specific mental health concerns. Students in Tiers 2 and 3 should have a parent or guardian complete the Conners Parent Rating Scale–Revised: Long or a Child Behavior Checklist, which would also indicate severity of internalizing and externalizing symptoms.

Assessors may wish to collect additional data not included in the current study, such as teacher observations and perception of school climate and psychological symptoms. Assessing teacher observations and student's psychological symptoms from

the teacher's perception could be burdensome for teachers. Pinpointing at-risk students and gathering individually-based teacher observations and reports could be highly informative in the treatment process, especially with respect to school factors.

Treatment

Student absenteeism is a problem faced by schools worldwide. The number of referrals to the Clark County Truancy Court increased by 40% over a 3-year time period. The current study provides empirical support for the importance of addressing school climate when treating youth with school refusal behavior. A Response to Intervention approach to treatment should be considered, implementing treatment plans at Tier 1 (broad, school level), Tier 2 (small, at-risk level), and Tier 3 (individualized) levels. This approach is familiar to school personnel and can facilitate improved understanding and communication between school and community professionals.

Researchers examining school dropout have reported positive relationships with teachers as a key factor related to less student dropout (Jimerson et al., 2002; Lee & Burkham, 2003). Janosz and colleagues (1997) found that school variables were stronger predictors of dropout than family variables, which indicates the high level of importance in considering school climate in treatment. Byrnes and Reyna (2012) reported absenteeism as the strongest predictor of school dropout. The current study provides support for the notion that the interplay of school climate variables contribute to absenteeism. By addressing school climate at a systemic level, programs could target absenteeism and in turn, decrease school dropout. School dropout is associated with other difficulties later in life, including unemployment, lower earning potential, reliance

on government assistance programs, and higher rates of criminal behavior (Levin & Benfield, 2007; Levin et al., 2007; Sum et al., 2009).

Treatment at Tier 1 would occur at a broad level, likely within the school. School climate is an important aspect that should be considered. School-based approaches to enhance climate could include increasing student involvement in attendance, recognizing attendance through award ceremonies, and rewarding good attendance along with regular monitoring (Kearney, 2012). A broad approach to addressing student interpersonal relations and bullying could be accomplished through the Olweus Bullying Prevention Program, which provides clear and enforced policies regarding bullying as well as class discussions, immediate response to bullying behavior, and parent involvement (Olweus & Limber, 2010).

Davies and Lee (2006) found that parents of youth with absenteeism reported poor communication between home and school and mistreatment directed at the student and parent by school personnel as primary factors contributing to their child's absenteeism. Language barriers and cultural differences between parents and school officials can also affect a child's school attendance (Franklin & Soto, 2002). Youth in the current study reported that low parental involvement contributes to absenteeism. The results of the current study strongly suggest that schools and parents should implement programs to improve communication between school officials, youth, and family members to improve attendance. These approaches may include helping families build supportive environments within the home, increasing parent-school communication, enlisting parents to participant in school activities and committees, and providing psychoeducation to parents about helping students with homework (Sheldon, 2007).

Treatment at Tier 2 would occur with youth who meet criteria for problematic absenteeism. Treatment would include parent involvement and a team of school psychologists, guidance counselors, school-based social workers, and other team members as needed, such as community-based professionals. Treatment approaches may include family therapy and referrals to a child psychologist or psychiatrist to address individual needs (Kearney, 2012).

Prescriptive treatment approaches could be delivered based upon the youth's most reinforcing function of school refusal behavior. These interventions could include cognitive-behavioral techniques to manage anxiety, psychoeducation, gradual reentry into class, increasing social engagement, establishing fixed routines, implementing a reward and punishment system for attendance and nonattendance, and pharmacotherapy (Kearney, 2001). Treatment at Tier 3 would expand upon Tier 2 treatment approaches but may also include legal approaches and alternative education programs as well as increased school-parent communication (Kearney, 2012).

Without appropriate prevention, assessment and intervention strategies, absenteeism can lead to poor academic achievement, school failure, school dropout and other long-term consequences including unemployment and poor job stability (Hibbett et al., 1990). Adults with a history of school attendance problems also generally seek psychological services more frequently than adults who report having attended school regularly (Flakierska et al., 1988). Identifying and treating at-risk individuals could prevent the onset of chronic absenteeism and decrease the potential and devastation of long-term consequences.

Limitations

The current study is limited by various factors. First, information was not analyzed to determine potential differences in perceived school climate by school. Future studies should include an analysis of student report by school to determine whether school climate ratings are consistent among students. The current study did include an examination of variables such as gender, age, amount of absenteeism and ethnicity among all students.

Second, the current study only included child report of school climate and child and parent report of primary function and symptoms and did not include behavioral observation or teacher report. Utilizing more information from a greater number of resources may have broadened the results and allowed for a greater understanding of youth with truancy in a community setting. Information such as daily attendance logs and journals regarding psychopathology would have provided a more accurate report of feelings related to nonattendance instead of relying solely on self-reported feelings based upon memory, although the current study did include two open-ended interview questions. Child report of externalizing symptoms would be a valuable addition to future studies. In addition, academic performance is a predictor of level of absenteeism but was not analyzed in the current study (Henry & Huizinga, 2007). An analysis of school performance as a potential moderator could have informed school efforts for targeting individuals who may be at risk for absenteeism.

Third, youth and parents did not complete study packets at the same point in the Truancy Court or Truancy Diversion Program. Youth could have been assessed immediately upon entrance into the programs. This may have given a more accurate

picture of the level of psychological distress and feelings related to school that were present prior to receiving monitoring of attendance and assistance in school-related struggles via the court or diversion program.

Recommendations for Future Study

Future research regarding school climate, absenteeism, and psychopathology should address the aforementioned limitations and logical next steps. First, a future investigation should analyze the models by subscale or by item to determine which specific aspects of school climate, function, or psychopathology are the most salient contributors to absenteeism. This may enable researchers to better understand the complex interplay between the five subscales of school climate and determine how they work together to influence absenteeism.

Future studies should include child-reported externalizing symptoms, teacher report of symptoms, and a measure of student performance such as GPA to be included in analysis. Future studies could examine potential differences in student and teacher perceived school climate to determine whether significant differences exist. Additionally, school performance could be examined as a potential moderator variable. The model of school climate and absenteeism may be stronger for youth with poorer performance in school. The addition of school performance could provide implications for schools to create programs that target at-risk students who have poor academic performance and could be prone to absenteeism.

Future studies should assess students at their first court or diversion program appearance. This would maximize consistency among reports. Students could also be

assessed upon completion of the program to determine if the models in the current study still hold up after the student's attendance and school concerns are addressed.

APPENDIX I

Measures

School Refusal Assessment Scale (C)

1. How often do you have bad feelings about going to school because you are afraid of something related to school (for example, tests, school bus, teacher, fire alarm)?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

2. How often do you stay away from school because it is hard to speak with the other kids at school?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

3. How often do you feel you would rather be with your parents than go to school?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

4. When you are not in school during the week (Monday to Friday), how often do you leave the house and do something fun?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

5. How often do you stay away from school because you will feel sad or depressed if you go?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

6. How often do you stay away from school because you feel embarrassed in front of other people at school?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

7. How often do you think about your parents or family when in school?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

8. When you are not in school during the week (Monday to Friday), how often do you talk to or see other people (other than your family)?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

9. How often do you feel worse at school (for example, scared, nervous, or sad) compared to how you feel at home with friends?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

10. How often do you stay away from school because you do not have many friends there?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

11. How much would you rather be with your family than go to school?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

12. When you are not in school during the week (Monday to Friday), how much do you enjoy doing different things (for example, being with friends, going places)?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

13. How often do you have bad feelings about school (for example, scared, nervous, or sad) when you think about school on Saturday and Sunday?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

14. How often do you stay away from certain places in school (e.g., hallways, places where certain groups of people are) where you would have to talk to someone?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

15. How much would you rather be taught by your parents at home than by your teacher at school?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

16. How often do you refuse to go to school because you want to have fun outside of school?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

17. If you had less bad feelings (for example, scared, nervous, sad) about school, would it be easier for you to go to school?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

18. If it were easier for you to make new friends, would it be easier to go to school?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

19. Would it be easier for you to go to school if your parents went with you?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

20. Would it be easier for you to go to school if you could do more things you like to do after school hours (for example, being with friends)?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

21. How much more do you have bad feelings about school (for example, scared, nervous, or sad) compared to other kids your age?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

22. How often do you stay away from people at school compared to other kids your age?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

23. Would you like to be home with your parents more than other kids your age would?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

24. Would you rather be doing fun things outside of school more than most kids your age?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

Revised Child Anxiety and Depression Scale (RCADS)

1. I worry about things	Never	Sometimes	Often	Always
2. I feel sad or empty	Never	Sometimes	Often	Always
3. When I have a problem, I get a funny feeling in my stomach	Never	Sometimes	Often	Always
4. I worry when I think I have done poorly at something	Never	Sometimes	Often	Always
5. I would feel afraid of being on my own at home	Never	Sometimes	Often	Always
6. Nothing is much fun anymore	Never	Sometimes	Often	Always
7. I feel scared when I have to take a test	Never	Sometimes	Often	Always
8. I feel worried when I think someone is angry with me	Never	Sometimes	Often	Always
9. I worry about being away from my parents	Never	Sometimes	Often	Always
10. I get bothered by bad or silly thoughts or pictures in my mind	Never	Sometimes	Often	Always
11. I have trouble sleeping	Never	Sometimes	Often	Always
12. I worry that I will do badly at my school work . .	Never	Sometimes	Often	Always
13. I worry that something awful will happen to someone in my family	Never	Sometimes	Often	Always
14. I suddenly feel as if I can't breathe when there is no reason for this	Never	Sometimes	Often	Always
15. I have problems with my appetite	Never	Sometimes	Often	Always
16. I have to keep checking that I have done things right (like the switch is off, or the door is locked)	Never	Sometimes	Often	Always
17. I feel scared if I have to sleep on my own. . . .	Never	Sometimes	Often	Always

18. I have trouble going to school in the mornings because I feel nervous or afraid	Never	Sometimes	Often	Always
19. I have no energy for things	Never	Sometimes	Often	Always
20. I worry I might look foolish	Never	Sometimes	Often	Always
21. I am tired a lot	Never	Sometimes	Often	Always
22. I worry that bad things will happen to me	Never	Sometimes	Often	Always
23. I can't seem to get bad or silly thoughts out of my head.	Never	Sometimes	Often	Always
24. When I have a problem, my heart beats really fast	Never	Sometimes	Often	Always
25. I cannot think clearly	Never	Sometimes	Often	Always
26. I suddenly start to tremble or shake when there is no reason for this	Never	Sometimes	Often	Always
27. I worry that something bad will happen to me	Never	Sometimes	Often	Always
28. When I have a problem, I feel shaky	Never	Sometimes	Often	Always
29. I feel worthless	Never	Sometimes	Often	Always
30. I worry about making mistakes	Never	Sometimes	Often	Always
31. I have to think of special thoughts (like numbers or words) to stop bad things from happening.	Never	Sometimes	Often	Always
32. I worry what other people think of me	Never	Sometimes	Often	Always
33. I am afraid of being in crowded places (like shopping centers, the movies, buses, busy playgrounds)	Never	Sometimes	Often	Always
34. All of a sudden I feel really scared for no reason at all	Never	Sometimes	Often	Always
35. I worry about what is going to happen	Never	Sometimes	Often	Always
36. I suddenly become dizzy or faint when there is no reason for this	Never	Sometimes	Often	Always
37. I think about death	Never	Sometimes	Often	Always
38. I feel afraid if I have to talk in front of my class	Never	Sometimes	Often	Always

My heart suddenly starts to beat too quickly for no reason	Never	Sometimes	Often	Always
I feel like I don't want to move	Never	Sometimes	Often	Always
I worry that I will suddenly get a scared feeling when there is nothing to be afraid of	Never	Sometimes	Often	Always
I have to do some things over and over again (like washing my hands, cleaning or putting things in a certain order)	Never	Sometimes	Often	Always
I feel afraid that I will make a fool of myself in front of people	Never	Sometimes	Often	Always
I have to do some things in just the right way to stop bad things from happening	Never	Sometimes	Often	Always
I worry when I go to bed at night	Never	Sometimes	Often	Always
I would feel scared if I had to stay away from home overnight	Never	Sometimes	Often	Always
I feel restless	Never	Sometimes	Often	Always

School Climate Survey

We want to know how you feel about your school. Please indicate how strongly you agree or disagree with each statement by filling in <u>one</u> of the five responses. Your answers will be kept confidential. ***Please read each sentence carefully before answering.***

SCALE: SA = Strongly Agree A = Agree NS = Not Sure D = Disagree SD = Strongly Disagree

	SA	A	NS	D	SD
1. My school is usually too noisy	○	○	○	○	○
2. At my school, students help one another	○	○	○	○	○
3. Students at my school often get hurt in school	○	○	○	○	○
4. My school is a safe place	○	○	○	○	○
5. The behavior of students at my school is good	○	○	○	○	○
6. In this school, I am made to feel that I can learn	○	○	○	○	○
7. My parent(s) does not come to programs at my school	○	○	○	○	○
8. In this school, I am encouraged to do my best	○	○	○	○	○
9. My parent(s) often attends parent meetings at school	○	○	○	○	○
10. At this school, teachers pay attention to my feelings	○	○	○	○	○
11. Students at my school are caring people	○	○	○	○	○
12. Teachers at my school help students with their problems	○	○	○	○	○
13. At my school, my teachers often meet with my parent(s) to talk about my school work	○	○	○	○	○
14. At my school, the same students always get chosen to help with special projects	○	○	○	○	○
15. The tables and chairs in this school are in good condition	○	○	○	○	○
16. The walls of this school are usually in good condition	○	○	○	○	○
17. At my school, the teachers work hard to get the students to do well on tests	○	○	○	○	○
18. At my school, the same students get chosen every time to participate in after-school or special activities	○	○	○	○	○
19. Students at my school trust one another	○	○	○	○	○
20. Some children at my school often say that they will hit or beat others	○	○	○	○	○
21. At my school, parents often come to help in the classrooms	○	○	○	○	○

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SCALE: SA = Strongly Agree A = Agree NS = Not Sure D = Disagree SD = Strongly Disagree

	SA	A	NS	D	SD
22. Teachers at my school help the students with their school problems	○	○	○	○	○
23. At my school, the teachers make the students feel good about themselves	○	○	○	○	○
24. My parent(s) visits my school often	○	○	○	○	○
25. Sometimes the school roof leaks	○	○	○	○	○
26. My parent(s) often comes to my school to help with special projects	○	○	○	○	○
27. Students at my school respect one another	○	○	○	○	○
28. Students at my school have good self-control	○	○	○	○	○
29. Most teachers at my school care about the students who go here	○	○	○	○	○
30. Students at my school respect the teachers	○	○	○	○	○
31. When we have games at my school, the same students are always put in charge	○	○	○	○	○
32. There are often broken windows or doors at this school	○	○	○	○	○
33. At my school, the students obey the rules	○	○	○	○	○
34. The school is often too hot or too cold	○	○	○	○	○
35. Students at my school fight a lot	○	○	○	○	○
36. Students at my school like one another	○	○	○	○	○
37. At my school, students from families with a lot of money and students from families with less money are treated the same	○	○	○	○	○
38. This school has a bright and pleasant appearance	○	○	○	○	○
39. When we have special equipment, like a computer, or a piano, the same students get to use them all the time	○	○	○	○	○
40. At my school, the teachers do not respect the students	○	○	○	○	○
41. Children at my school call each other offensive names	○	○	○	○	○
42. This school is usually clean and tidy	○	○	○	○	○

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School Refusal Assessment Scale-Revised (P)

1. How often does your child have bad feelings about going to school because he/she is afraid of something related to school (for example, tests, school bus, teacher, fire alarm)?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

2. How often does your child stay away from school because it is hard for him/her to speak with the other kids at school?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

3. How often does your child feel he/she would rather be home with you or your spouse than go to school?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

4. When your child is not in school during the week (Monday to Friday), how often does he/she leave the house and do something fun?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

5. How often does your child stay away from school because he/she will feel sad or depressed if he/she goes to school?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

6. How often does your child stay away from school because he/she feels embarrassed in front of other people at school?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

7. How often does your child think about you or your spouse or family when in school?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

8. When your child is not in school during the week (Monday to Friday), how often does he/she talk to or see other people (other than your family)?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

9. How often does your child feel worse at school (for example, scared, nervous, or sad) compared to how he/she feels at home with friends?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

10. How often does your child stay away from school because he/she does not have many friends there?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

11. How much would your child rather be with his/her family than go to school?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

12. When your child is not in school during the week (Monday to Friday), how much does he/she enjoy doing different things (for example, being with friends, going places)?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

13. How often does your child have bad feelings about school (for example, scared, nervous, or sad) when he/she thinks about school on Saturday and Sunday?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

14. How often does your child stay away from certain places in school (e.g., hallways, places where certain groups of people are) where he/she would have to talk to someone?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

15. How much would your child rather be taught by you or your spouse at home than by his/her teacher at school?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

16. How often does your child refuse to go to school because he/she wants to have fun outside of school?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

17. If your child had less bad feelings (for example, scared, nervous, sad) about school, would it be easier for him/her to go to school?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

18. If it were easier for your child to make new friends, would it be easier for him/her to go to school?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

19. Would it be easier for your child to go to school if you or your spouse went with him/her?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

20. Would it be easier for your child to go to school if he/she could do more things he/she liked to do after school hours (for example, being with friends)?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

21. How much more does your child have bad feelings about school (for example, scared, nervous, or sad) compared to other kids his/her age?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

22. How often does your child stay away from people at school compared to other kids his/her age?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

23. Would your child like to be home with you or your spouse more than other kids his/her age would?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

24. Would your child rather be doing fun things outside of school more than most kids his/her age?

0	1	2	3	4	5	6
Never	Seldom	Sometimes	Half The Time	Usually	Almost Always	Always

Conners' Parent Rating Scale	Not True at All	Just a little True	Pretty Much True	Very True
1. Angry and resentful	0	1	2	3
2. Difficulty doing or completing homework	0	1	2	3
3. Is always "on the go" or acts as if driven by a motor	0	1	2	3
4. Timid, easily frightened	0	1	2	3
5. Everything must be just so	0	1	2	3
6. Has no friends	0	1	2	3
7. Stomach aches	0	1	2	3
8. Fights	0	1	2	3
9. Avoids, expresses reluctance about, or has difficulties engaging in tasks that sustained mental effort (such as schoolwork or homework)	0	1	2	3
10. Has difficulty sustaining attention in tasks or play activities	0	1	2	3
11. Argues with adults	0	1	2	3
12. Fails to .complete assignments	0	1	2	3
13. Hard to control in malls or while grocery shopping	0	1	2	3
14. Afraid of people	0	1	2	3
15. Keeps checking things over again and again	0	1	2	3
16. Loses friends quickly	0	1	2	3
17. Aches and	0	1	2	3
18. Restless or overactive	0	1	2	3.
19. Has trouble concentrating in class	0	1	2	3
20. Does not seem to listen to what is being said to him/her	0	1	2	3
21. Loses temper	0	1	2	3
22. Needs close supervision to get through assignments	0	1	2	3
23. Runs about or climbs excessively in situations where it is inappropriate	0	1	2	3
24. Afraid of new situations	0	1	2	3
25. Fussy about cleanliness	0	1	2	3
26. Does not know how to make friends	0	1	2	3
27. Gets aches and pains or stomachaches before school	0	1	2	3
28. Excitable, impulsive.....	0	1	2	3
29. Does not follow through on instructions and fails to finish schoolwork, chores or duties in the workplace (not due to oppositional behavior or failure to understand instructions)	0	1	2	3
30. Has difficulty organizing tasks and activities	0	1	2	3
31. Irritable	0	1	2	3
32. Restless in the "squirmy sense"	0	1	2	3
33. Afraid of being alone	0	1	2	3
34. Things must be done the same way every time	0	1	2	3
35. Does not get invited over to friends' houses	0	1	2	3
36. Headaches	0	1	2	3
37. Fails to finish things he/she starts	0	1	2	3

	Not True At All	Just a Little True	Pretty Much True	Very True
38. Inattentive, easily distracted	0	1	2	3
39. Talks excessively	0	1	2	3
40. Actively defies or refuses to comply with adults' requests	0	1	2	3
41. Fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities	0	1	2	3
42. Has difficulty waiting in lines or awaiting turn in games or group situations	0	1	2	3
43. Has a lot of fears	0	1	2	3
44. Has rituals that he/she must go through	0	1	2	3
45. Distractibility or attention span a problem	0	1	2	3
46. Complains about being sick even when nothing is wrong	0	1	2	3
47. Temper outbursts	0	1	2	3
48. Gets distracted when given instructions to do something	0	1	2	3
49. Interrupts or intrudes on others (e.g., butts into others' conversations or games)	0	1	2	3
50. Forgetful in daily activities	0	1	2	3
51. Cannot grasp arithmetic	0	1	2	3
52. Will run around between mouthfuls at meals	0	1	2	3
53. Afraid of the dark, animals, or bugs	0	1	2	3
54. Sets very high goals for self	0	1	2	3
55. Fidgets with hands or feet or squirms in seat	0	1	2	3
56. Short attention span	0	1	2	3
57. Touchy or easily annoyed by others	0	1	2	3
58. Has sloppy handwriting	0	1	2	3
59. Has difficulty playing or engaging in leisure activities quietly	0	1	2	3
60. Shy, withdrawn	0	1	2	3
61. Blames others for his/her mistakes or misbehavior	0	1	2	3
62. Fidgeting	0	1	2	3
63. Messy or disorganized at home or school	0	1	2	3
64. Gets upset if someone rearranges his/her things	0	1	2	3
65. Clings to parents or other adults	0	1	2	3
66. Disturbs other children	0	1	2	3
67. Deliberately does things that annoy other people	0	1	2	3
68. Demands must be met immediately — easily frustrated	0	1	2	3
69. Only attends if it is something he/she is very interested in	0	1	2	3
70. Spiteful or vindictive.	0	1	2	3
71. Loses things necessary for tasks or activities (e.g., school assignments, pencils, books, tools or toys)	0	1	2	3
72. Feels inferior to others	0	1	2	3
73. Seems tired or slowed down all the time	0	1	2	3
74. Spelling is poor	0	1	2	3
75. Cries often and easily	0	1	2	3
76. Leaves seat in classroom or in other situations in which remaining seated is	0	1	2	3
77. Mood changes quickly and drastically	0	1	2	3
78. Easily frustrated in efforts	0	1	2	3
79. Easily distracted by extraneous stimuli	0	1	2	3
80. Blurts out answers to questions before the questions have been completed	0	1	2	3

APPENDIX II

Table 3

Pearson Correlation Coefficients among All Subscales

Subscale	% Missed	SoR	OaD	PI	SIR	STR
% Missed	-					
SoR	.04					
OaD	.15	.16				
PI	.04	.04	-.13			
SIR	.11	.02	.39**	.35**		
STR	.05	.26**	.28**	.32**	.48**	
ANA	.26**	-.11	-.09	.06	-.17	-.12
ESE	.27**	-.02	-.05	-.02	-.11	-.06
AGB	.27**	-.09	-.06	.11	-.14	-.10
PTR	.20*	-.08	-.04	-.15	-.15	-.10
ANX	.27*	-.13	-.14	-.07	-.27**	-.21*
DEP	.27*	-.16	-.14	-.22**	-.27**	-.26**
OPP	.21	-.05	-.25**	-.19*	-.17	-.06
COG/ATTN	.02	-.04	-.20*	-.18	-.23*	-.15
PSYCHOSOM	.13	-.04	.12	-.03	-.13	.02

Note. % Missed = Percentage of school days missed, SoR = Sharing of Resources, OaD = Order and Discipline, PI = Parent Involvment, SIR = Student Interpersonal Relations, STR = Student-Teacher Relations, ANA = Avoidance of Negative Affectivity, ESE = Escape from Aversive Social or Evaluative Situations, AGB = Attention-Getting Behavior, PTR = Pursuit of Tangible Reinforcement, ANX = Total Anxiety, DEP = Depression, OPP = Conners Oppositional, COG/ATTN = Conners Cognitive/Attention Problems, PSYCHOSOM = Conners Psychosomatic . * = $p < .05$, ** = $p < .01$

Subscale	ANA	ESE	AGB	PTR	ANX	DEP
% Missed						
SoR						
OaD						
PI						
SIR						
STR						
ANA						
ESE	.72**					
AGB	.58**	.54**				
PTR	.22**	.19**	.27**			
ANX	.63**	.58**	.46**	.08		
DEP	.49**	.43**	.37**	.20**	.70**	
OPP	.16**	.08	.05	.21**	.20**	.32**
COG/ATTN	.12*	.12*	.03	.14*	.21**	.27**
PSYCHOSOM	.23**	.23**	.18**	.06	.30*	.31**

Subscale	OPP	COG/ATTN
% Missed		
SoR		
OaD		
PI		
SIR		
STR		
SRAS ANA		
SRAS ESE		
SRAS AGB		
SRAS PTR		
ANX		
DEP		
OPP		
COG/ATTN	.59**	
PSYCHOSOM	.47**	.41**

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VITA

Graduate College
University of Nevada, Las Vegas

Marisa C. Hendron

Degrees:

Bachelor of Arts, Psychology, 2006
Temple University

Master of Arts, Psychology, 2011
University of Nevada, Las Vegas

Publications:

Grandin, L. D., Hafner, J. A., **Gauger**, **M. C.,** Lear, T. A., Verdon, K. & Alloy, L. B. (2009). Life Events and Social Rhythms in Bipolar Spectrum Disorders: A Prospective Study. *Behavior Therapy*, 40, 131-141.

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Dissertation Examination Committee:

Chairperson, Dr. Christopher Kearney, Ph. D.
Committee Member: Dr. David Copeland, Ph. D.
Committee Member: Dr. Laurel Pritchard, Ph. D
Graduate Faculty Representative: Dr. Lori Olafson, Ph. D.