

# School absenteeism and school refusal behavior in youth: A contemporary review

Christopher A. Kearney\*

*Department of Psychology, University of Nevada, Las Vegas, 4505 Maryland Parkway, Las Vegas, NV 89154-5030, United States*

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## Abstract

Absenteeism from school is a serious public health issue for mental health professionals, physicians, and educators. The prevalence of unexcused absences from school exceeds that of major childhood behavior disorders and is a key risk factor for violence, injury, substance use, psychiatric disorders, and economic deprivation. This article involves a contemporary research review on absenteeism prevalence, comorbid physical and psychiatric conditions, classification, contextual risk factors, cross-cultural variables, assessment, intervention, and outcome. Contextual risk factors include homelessness and poverty, teenage pregnancy, school violence and victimization, school climate and connectedness, parental involvement, and family variables, among others. A description of intervention includes medical, clinical, and systemic interventions. Medical professionals, community- and school-based mental health professionals, and educators are encouraged to fully understand the parameters of school absenteeism to develop better, consensual policies regarding definition, classification, assessment, and intervention of youths with problematic school absenteeism.

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\* Tel.: +1 702 895 3305; fax: +1 702 895 0195.

E-mail address: [chris.kearney@unlv.edu](mailto:chris.kearney@unlv.edu).

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## 1. Introduction

Absenteeism from school is a serious mental and physical health concern for many children and adolescents. Absenteeism or placement in alternative educational settings, usually for absenteeism, is a key risk factor for suicide attempt, perilous sexual behavior, teenage pregnancy, violence, unintentional injury, driving under the influence of alcohol, and alcohol, marijuana, tobacco, and other substance use (Almeida, Aquino, & de Barros, 2006; Chou, Ho, Chen, & Chen, 2006; Denny, Clark, & Watson, 2003; Grunbaum et al., 2004; Guttmacher, Weitzman, Kapadia, & Weinberg, 2002; Hallfors et al., 2002; Henry & Huizinga, 2007). Chronic absenteeism is often associated as well with school dropout, an event that leads to immediate disconnection from school-based health and mental health programs, economic deprivation, and marital, social, and psychiatric problems in adulthood (Kogan, Luo, Murry, & Brody, 2005; Tramontina et al., 2001; US Census Bureau, 2005).

Absenteeism from school may also result from physical and psychiatric problems. As discussed later, absenteeism is intricately linked to myriad medical conditions, especially asthma. In fact, some have suggested that absenteeism rates may be a useful barometer of disease outbreaks (Besculides, Heffernan, Mostashari, & Weiss, 2005). Psychiatric conditions related to extensive school absences primarily include anxiety, depressive, and disruptive behavior disorders. As such, school absenteeism remains an important public health issue for mental health professionals, physicians, and educators.

The purpose of this article is to provide a concise review of contemporary research on school absenteeism and related concepts in youth. Reviews of literature prior to 2001 are available (Heyne, King, Tonge, & Cooper, 2001; Kearney, 2001; King & Bernstein, 2001), so the emphasis in this paper will be on the extensive research literature published after 2000. Following a brief description of key concepts, data and theory regarding prevalence, physical conditions, psychiatric conditions, classification, contextual risk factors, assessment, intervention, and outcome are presented.

## 2. Key concepts

*Absenteeism* refers to excusable or inexcusable absences from elementary or secondary (middle/high) school. Researchers generally focus on youths aged 5–17 years with excessive (1) excusable absences related to medical illness or injury or (2) inexcusable absences related to environmental, social, psychiatric, or other conditions. Inexcusable absences may be caused by *school withdrawal*, where parents deliberately keep a child home from school for economic purposes, to conceal maltreatment, to prevent abduction from an estranged spouse, to protect a child from perceived school-based threat, to assist a parent with psychopathology, or for other reasons (Kearney, 2004).

Inexcusable absences may also be caused by *school refusal behavior*, or child-motivated refusal to attend school and/or problems remaining in classes for an entire day. Researchers generally focus on school refusal behavior and not school withdrawal. School refusal behavior is a heterogeneous, dimensional construct consisting of extended absences from school, periodic absences from school or missed classes, chronic tardiness, and intense dread about school that precipitates pleas for future nonattendance (see Fig. 1). Episodes of school refusal behavior may include any of these forms and may change on a daily basis. School refusal behavior is an umbrella term that subsumes constructs such as truancy, school refusal, and school phobia (Kearney, 2003).

*Truancy* generally refers to unexcused, illegal, surreptitious absences, non-anxiety-based absenteeism, absenteeism linked to lack of parental knowledge about the behavior, absenteeism linked to delinquency or academic problems, or absenteeism linked to social conditions such as homelessness or poverty (Fremont, 2003). *School refusal* generally

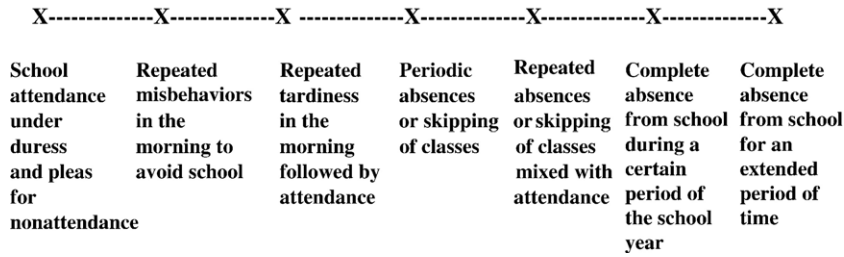


Fig. 1. Continuum of school refusal behavior in youth.

refers to anxiety-based absenteeism, often from separation, generalized, or social anxiety. *School phobia* generally refers to fear-based absenteeism, but youths are rarely phobic of school and so this term has been deemphasized in recent research literature (Hanna, Fischer, & Fluent, 2006; Suveg, Aschenbrand, & Kendall, 2005). A key problem in the literature is that truancy, school refusal, and school phobia are used interchangeably or defined inconsistently (Lauchlan, 2003; McCune & Hynes, 2005). This article will thus focus on overarching concepts of school absenteeism and school refusal behavior.

### 3. Prevalence

According to the National Center for Education Statistics for 2005, 19% of fourth-graders and 20% of eighth-graders missed at least 3 days of school in the past month. More specifically, 7% of fourth-graders and 7% of eighth-graders missed at least 5 days of school in the past month. School absenteeism is largely unrelated to gender but more common among diverse students, especially American Indians, as well as students with disabilities, students eligible for free or reduced-price lunch, and students in schools whose populace is largely eligible for free or reduced-price lunch (see Table 1). Absenteeism rates have remained stable since 1994 (National Center for Education Statistics, 2006a).

Table 1  
Percentage of 4th-grade and 8th-grade students missing 3 or more days of school in the past month in 2005

	Grade4/Grade8
Total	19/20
Male	18/20
Female	20/21
White	18/19
African–American	21/24
Hispanic	21/23
Asian/Pacific Islander	13/12
American Indian	25/29
English language learner—yes	21/23
English language learner—no	19/20
Disability—yes	24/29
Disability—no	19/20
Language other than English spoken in the home—yes	20/21
Language other than English spoken in the home—no	18/20
Student eligible for free/reduced-price lunch—yes	23/25
Student eligible for free/reduced-price lunch—no	17/18
School in central city	20/22
School in urban fringe/large town	18/20
School in rural/small town	20/19
School with 10% or less students eligible for free/reduced-price lunch	16/17
School with 11–25% students eligible for free/reduced-price lunch	18/18
School with 26–50% students eligible for free/reduced-price lunch	19/21
School with 51–75% students eligible for free/reduced-price lunch	21/23
School with more than 75% students eligible for free/reduced-price lunch	22/25

Source: National Center for Education Statistics (2006a).

Absenteeism in high school students is more difficult to quantify because many adolescents leave school permanently. According to the National Center for Education Statistics, the 2004 status school dropout rate for 16–24-year olds is 10.3%. Status dropout rate refers to percentage of those out of school and who have not earned a high school credential. Status dropout rates are slightly higher for males (11.6%) than females (9.0%) and for Hispanics (23.8%) than African–Americans (11.8%) or European–Americans (6.8%). Status dropout rates are also higher among youths in lowest-income families (17.7%), employed youths (53.0%), and youths with 11 or 12 years of education (40.3%) (National Center for Education Statistics, 2006a). These figures suggest that many youths leave school to financially support themselves or their families. In addition, many youths are classified as dropouts when in fact they were never enrolled in school.

Recent attempts have been made, however, to pinpoint absenteeism at the high school level. A comprehensive attempt to do so was by Guare and Cooper, who surveyed 230 youths in 4 high schools and 1 middle school in the United States. The authors found many students to sometimes (29.1%) or often (9.1%) deliberately and completely miss school. In addition, 54.6% of students sometimes skipped classes and 13.1% often did so. Rates of absenteeism from school were generally equal across gender but more prevalent among European–Americans (48.4%), non-English-speaking families (65.0%), students with fair to poor academic achievement (52.4%), and 12th-graders (55.0%) (Guare & Cooper, 2003). Rates of absenteeism range widely, however, across school districts. The daily absenteeism rate for New York City public high schools, for example, has been reported as 15–30% (Weitzman, Guttmacher, Weinberg, & Kapadia, 2003).

As mentioned, absenteeism may occur for many reasons, including illness or injury. According to the Centers for Disease Control and Prevention for 2004, 10.9% of youths aged 5–17 years missed 6–10 days of school in the past year due to illness or injury. In addition, 5.1% missed 11 or more days and 1.0% did not attend school due to illness or injury. Those missing 11 or more days tended to be male (5.3%) than female (4.9%) and aged 12–17 years (6.7%) than aged 5–11 years (3.8%). Missing 11 or more days of school due to illness or injury was also more common among single-parent (mother) families (8.0%), parents with less than a high school diploma (7.2%), families of income less than \$20,000 (8.7%), families living in smaller communities (6.0%), and families in the Northeast (6.2%) (Centers for Disease Control and Prevention, 2006).

Absenteeism due to school refusal behavior is much more difficult to quantify because the behavior includes complete and partial absences, tardiness, and anxiety-based difficulties attending school. Partial absences such as skipped classes are counted as full-day absences in some school districts but not others. Indeed, a key problem in this area is that school districts often inconsistently define, track, and report instances of absenteeism.

Tardiness is a common problem reported by 32% of principals and teachers but no consensual definition or classification of the behavior exists (National Center for Education Statistics, 1999–2000). Several researchers have pegged the prevalence of anxiety-based difficulties attending school at 1–5%, but this remains controversial (Suveg et al., 2005). A recent comprehensive community study of youths with anxiety-based school refusal and truancy revealed a total prevalence rate of 8.2% (Egger, Costello, & Angold, 2003).

School absenteeism and school refusal behavior are common problems whose prevalence rates rival those of major childhood behavior disorders such as depression, substance abuse/dependence, depression, and conduct, oppositional defiant, and attention deficit hyperactivity disorder (median prevalence estimates all <5%) (Costello, Egger, & Angold, 2005). Unfortunately, comprehensive and empirically-based research attention to these vital issues has only recently burgeoned. Some of this research has included common physical and psychiatric conditions associated with school absenteeism and school refusal behavior. These conditions are described next.

#### 4. Physical conditions

Researchers have linked school absenteeism to myriad medical problems (see Table 2). References are provided for the reader in the table for more detailed information. Not included on this list is a full presentation of infectious diseases such as malaria or parasitic conditions such guinea worm disease or urinary schistosomiasis frequently linked to absenteeism in developing countries. Also not included on this list is a full presentation of surgical and medical procedures (and recovery from the procedures), such as adenotonsillectomy or upper gastrointestinal endoscopy, commonly linked to school absenteeism.

A leading cause of absenteeism worldwide is asthma and related respiratory illnesses (Borrego, Cesar, Leiria-Pinto, & Rosada-Pinto, 2005; Tinkelman & Schwartz, 2004). Within the United States, the Centers for Disease Control and

Table 2

Medical problems commonly linked to school absenteeism in recent literature

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Allergic rhinitis (Blaiss, 2004; Galant & Wilkinson, 2001)
Cancer (Lahteenmaki, Huostila, Hinkka, & Salmi, 2002; Vance & Eiser, 2002)
Chronic fatigue syndrome (Patel, Smith, Chalder, & Wessely, 2003; Sankey, Hill, Brown, Quinn, & Fletcher, 2006; Smith, Martin-Herz, Womack, & Marsigan, 2003)
Chronic illness and pain (Chalkiadis, 2001; Liang et al., 2002)
Epilepsy (Taras & Potts-Datema, 2005a)
Headache (Bandell-Hoekstra et al., 2001; Breuner, Smith, & Womack, 2004)
Head lice (Goldsmith, 2003)
Hemophilia (Shapiro et al., 2001)
HIV/AIDS (Grassly et al., 2003; Mialky, Vagnoni, & Rutstein, 2000)
Influenza (Neuzil, Hohlbein, & Zhu, 2002)
Injury—minor (bruise, sprain, laceration, fracture, head injury, puncture wound, bite, abrasion, nasal injury, eye injury, burn/scald, foreign body, haemarthrosis) (Barnes et al., 2001)
Irritable bowel syndrome/inflammatory bowel disease/Crohn's disease/dyspepsia (Condino, Fidanza, & Hoffenberg, 2005; Hulisz, 2004)
Menstrual complaints/dysmenorrhea (Chen, Lin, Heitkemper, & Wu, 2006; Houston, Abraham, Huang, & D'Angelo, 2006)
Obesity (Taras & Potts-Datema, 2005b)
Orofacial disease (Albert, McManus, & Mitchell, 2005)
Orthopedic injury (Conroy et al., 2006; Sesko, Choe, Vitale, Ugwonal, & Hyman, 2005)
Rheumatic fever (Terrerri, Ferraz, Goldenberg, Len, & Hilario, 2001)
Sickle cell anemia (Ogunfowora, Olanrewaju, & Akenzua, 2005)
Sleep disorder and daytime sleepiness (Drake et al., 2003)
Type I diabetes (Glaab, Brown, & Daneman, 2005; Moussa et al., 2005)

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Prevention estimate that 8.3% of children aged 0–17 years have asthma and 14.7 million days of school were missed due to asthma in 2002 (Centers for Disease Control and Prevention, 2004). The prevalence of asthma in American children has increased sharply over the past 25 years. Youths with asthma miss 1.5–3.0 times more school days than youths without asthma and approximately 60% of students with asthma miss school at some point in the academic year due to problematic respiratory symptoms (Bonilla et al., 2005; Dey & Bloom, 2005; Moonie, Sterling, Figs, & Castro, 2006; Silverstein et al., 2001). Absences from physical education classes are also common among youths with asthma (Austin, Selvaraj, Godden, & Russell, 2005).

School absenteeism due to asthma appears to be exacerbated by several factors. Youths with asthma are more likely to miss school if they are younger, poorer, less adherent to medical regimens, and living in an environment with considerable dust, vermin, or dampness and mold. In addition, greater absenteeism from asthma is related to critical fathers, mothers with asthma, poorer quality of life, diagnosis from a physician, higher ozone, smoking, and exposure to tobacco smoke. Ethnicity is an inconsistent predictor of absenteeism due to problematic respiratory symptoms (Austin et al., 2005; Freeman, Schneider, & McGarvey, 2003; Gilliland et al., 2003; Okelo et al., 2004; Taras & Potts-Datema, 2005c).

Problematic respiratory symptoms that lead to absenteeism can also result from environmental deficiencies such as indoor nitrogen dioxide and chemical pollutants, low outdoor air ventilation, and changes in thermal conditions (Mendell & Heath, 2005). School nonattendance has also been associated with classroom carbon dioxide concentrations and poor air quality from sulfur dioxide, ozone, and particulate matter. Researchers have thus issued recommendations for limiting children's exposure to pollutants by improving school filtration systems, building parks and schools away from high traffic exhaust, reducing outdoor exercise during poor air quality days, and increasing children's intake of antioxidants (Kunzli et al., 2003; Park et al., 2002; Rondeau, Berhane, & Thomas, 2005; Shendell et al., 2004).

School absenteeism is also commonly associated with risky health behaviors. In particular, absenteeism has been linked to adolescent illicit drug use (including alcohol and tobacco), binge drinking, driving under the influence of alcohol, perilous sexual behavior and HIV risk, suicide attempt, and poor nutrition (Alberg, Diette, & Ford, 2003; Almeida et al., 2006; Aloise-Young, Cruickshank, & Chavez, 2002; Chou et al., 2006; Denny et al., 2003; Grunbaum et al., 2004; Guttmacher et al., 2002; Hallfors et al., 2002; Henry & Huizinga, 2007; Kleinman et al., 2002; Weitzman et al., 2003). Causation remains largely unclear, however, so knowing whether absenteeism predisposes these risky behaviors or vice versa is in need of further study. Conversely, however, one study indicated that increased risk of



absenteeism actually promoted influenza vaccine acceptance among parents (Nettleman, White, Lavoie, & Chafin, 2001).

School absenteeism and school refusal behavior are also commonly associated with somatic complaints among children. Somatic complaints are especially frequent in youths with anxiety-based absenteeism, affecting 26.5% in one recent comprehensive community study (Egger et al., 2003) but much more so (79.4%) among a clinical sample in another study (Honjo, Nishide et al., 2001; Honjo, Sasaki et al., 2001). Somatic complaints among youths with problematic absenteeism typically include headache, stomachache, nausea or vomiting, fatigue, sweating, lightheadedness, abdominal or back or other pain, heart palpitations, diarrhea, shortness of breath, and menstruation symptoms.

Youths with somatic complaints in conjunction with school refusal behavior may be suffering from a true physical malady, such as those described above. However, many youths with school refusal behavior embellish actual low-grade physical symptoms that may partially result from stress. Embellishment of these symptoms may occur to derive attention from significant others or to induce parental acquiescence to stay home from school. In addition, many youths with school refusal behavior falsely claim to have somatic complaints. Physicians have been encouraged to conduct a full medical examination to exclude organic problems or treat true medical conditions affecting a child with school refusal behavior (Kearney, 2006a).

## 5. Psychiatric conditions

Youths who refuse to attend school commonly have psychiatric conditions that help precipitate their absenteeism or result from extended absences. Two recent studies have provided the most comprehensive view yet of psychiatric comorbidity among youths with problematic absenteeism. These studies are superior to prior studies in two main ways. First, large samples of youths with absentee problems were assessed. Second, structured diagnostic interviews with excellent psychometric properties were used. One study represented a community sample and one represented a clinical sample.

In the community study, Egger et al. (2003) utilized the Child and Adolescent Psychiatric Assessment to diagnose 165 youths with anxiety-based school refusal and 517 youths with truancy or otherwise unexcused absences. The most common diagnoses for youths with anxiety-based school refusal included depression (13.9%), separation anxiety disorder (10.8%), oppositional defiant disorder (5.6%), and conduct disorder (5.0%). In all, 24.5% of this group received a diagnosis. The most common diagnoses for youths with truancy included conduct disorder (14.8%), oppositional defiant disorder (9.7%), depression (7.5%), and substance abuse (4.9%). In all, 25.4% of this group received a diagnosis (Egger et al., 2003).

The authors also found that youths with anxiety-based school refusal had significantly more fears and worries, sleep difficulties, and somatic complaints (headaches and stomachaches) compared to youths with truancy. However, the two groups did not differ with respect to social anxiety, worry about calamitous separation from parents, or nightmares. Youths with anxiety-based school refusal generally had more peer relationship problems than youths with truancy and were more likely to have parents treated for mental health problems. Youths with truancy were more likely to experience lax supervision. No differences were found between the two groups, however, with respect to poverty, family size, living with a stepparent, parents without a high school diploma or unemployed, living in a dangerous neighborhood, parenting style or conflict, maternal depression, or parents with history of criminal conviction (Egger et al., 2003).

Kearney and Albano (2004) examined a large clinical sample ( $n=143$ ) of youths with school refusal behavior. Youths aged 5–17 years were referred to a specialized outpatient therapy clinic for problematic absenteeism, and the mean absentee rate was 37.2%. The Anxiety Disorders Interview Schedule for Children (child and parent versions) was used to assign diagnoses. 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%). Nearly one-third (32.9%) met criteria for no diagnosis (Kearney & Albano, 2004).

A third recent diagnostic study involved case review for 93 inpatient and 58 outpatient youths aged 10–17 years with school attendance difficulties. Primary diagnoses among the inpatient/outpatient groups included mood (30%/15%), anxiety (28%/14.5%), and disruptive behavior (18.5%/11.5%) disorder. The most common specific disorders among the two groups were major depression (31.8%), dysthymia (25.2%), oppositional defiant disorder (23.8%), and separation anxiety disorder (22.5%). Although only 4.6% of the total sample had a learning disorder, 31% reported that

academic difficulties were associated with onset of school attendance difficulties. In addition, 37% of the sample had a physical illness as well as 18% of mothers and 14% of fathers. One-fifth reported that physical illness was associated with onset of school attendance difficulties. Maternal (53%) and paternal (34%) psychiatric disorder was present in many cases as well (McShane, Walter, & Rey, 2001).

These and other studies indicate remarkable consistency with respect to type of diagnosis most commonly seen in youths with problematic absenteeism, which essentially involves depression, anxiety, and disruptive behavior disorder (Silove, Manicavasagar, & Drobny, 2002; Tramontina et al., 2001). The diagnostic studies are consistent as well with studies linking problematic school absenteeism to aggression and affiliation with aggressive peer groups (Farmer et al., 2003; Lounsbury, Steel, Loveland, & Gibson, 2004). However, the diagnostic studies also convey that many youths with school refusal behavior demonstrate no psychiatric condition. Many youths display problematic absenteeism as their sole behavior problem without comorbidity. This finding may partially reflect the fact that problematic absenteeism represents a symptom of two psychiatric disorders in childhood (separation anxiety disorder, conduct disorder) and not a psychiatric disorder per se.

## 6. Classification and proximal variables

Because problematic absenteeism is not a formal psychiatric diagnosis, debate continues to occur as to how the behavior should be defined and classified. The traditional notion of dividing youths with school refusal behavior into those with anxiety-based school refusal and truancy remains a popular but flawed one for several reasons. First, enormous diagnostic heterogeneity comprises both groups. Among youths with anxiety-based school refusal in the Egger et al. study, for example, externalizing behavior problems such as oppositional defiant and conduct disorder were highly prevalent. Second, substantial overlap in symptoms marks these groups. Youths with anxiety-based absenteeism are also commonly noncompliant about attending school, for example, and many youths with longstanding truancy display nervousness at the prospect of returning to school. Third, the descriptors of school refusal and truancy are not clearly linked to effective or useful assessment and intervention strategies for this population (Kearney, 2003).

An alternative method of classifying youths with school refusal behavior based on diagnosis or behavior form is to examine reasons why youths have difficulties attending school. These reasons may be divided into specific proximal variables and broader contextual risk factors. Proximal variables include those having a direct and immediate effect on behavior, such as reinforcements. Kearney and colleagues designed a taxonomic system of school refusal behavior based on function or reasons why youths refuse school. These functions are linked to specific reinforcements youths often receive for school refusal behavior (Kearney, Lemos, & Silverman, 2006).

The first function or reinforcement is avoidance of school-related stimuli that provoke negative affectivity, or general anxiety and depression. This function applies typically to younger children with difficulty identifying the cause of their distress at school but who refuse to attend because of discomfort there. In some cases, the child's discomfort can be linked to difficulty with transitions between classes or time periods, entry into a school building or classroom, or riding a school bus. This function is commonly associated with generalized anxiety disorder, somatic complaints, tardiness, and constant pleas for nonattendance (Kearney & Albano, 2004; Kearney, Chapman, & Cook, 2005; Kearney et al., 2006).

The second function or reinforcement is escape from aversive social and/or evaluative situations at school. This function applies typically to older children and adolescents with difficulty interacting with peers or others at school or difficulty with evaluative situations such as examinations, oral presentations, recitals, athletic performances, and eating in the cafeteria. In many cases, youths have problems assimilating into middle or high school or feel ostracized from peer or racial groups. This function is commonly associated with generalized and social anxiety disorder as well as shyness and withdrawn behavior (Kearney & Albano, 2004; Kearney et al., 2006).

The third function or reinforcement is pursuit of attention from significant others. This function typically applies to younger children who refuse school to remain home with parents or others. In this case, school itself is not aversive but the child prefers to be home or at a parent's workplace. Common misbehaviors include tantrums, running away from school, and noncompliance. This function is commonly associated with separation anxiety disorder and oppositional defiant disorder, though excessive worry about separation is not always present (Kearney & Albano, 2004; Kearney, Chapman, & Cook, 2005; Kearney et al., 2006).

The fourth function or reinforcement is pursuit of tangible reinforcers outside the school setting. This function typically applies to older children and adolescents who refuse school to pursue more alluring activities outside of

school such as watching television, playing videogames, spending time with friends, or engaging in day parties or substance use. This function may be most analogous to the traditional concept of truancy. Common problems linked to this function include family conflict as well as delinquent, rule-breaking behavior. This function is commonly associated with oppositional defiant and conduct disorder (Kearney & Albano, 2004; Kearney et al., 2006).

Recent data support the utility of a functional model for school refusal behavior. Among a clinical sample of 222 youths with school refusal behavior, Kearney utilized structural equation modeling to find function of school refusal behavior to be a better predictor of school absenteeism rate than traditional behavioral measures of fear, anxiety, and depression (Kearney, 2007a). In addition, confirmatory factor analysis of a measure associated with the functional model, the School Refusal Assessment Scale-Revised (child and parent versions), affirmed the presence of these four distinct functions of school refusal behavior (Kearney, 2006b). This measure is discussed at more length later in the assessment section.

## 7. Contextual risk factors

Contextual risk factors refer to those having an indirect or less immediate effect on school refusal behavior. Recent work has more closely and empirically linked school absenteeism and school refusal behavior to several environmental contextual risk factors summarized here.

### 7.1. Homelessness and poverty

Homelessness is a significant barrier to school attendance for children because many school districts require certain documentation as prerequisites to enrollment. Examples include immunization or academic records, birth certificates, permanent home address, and proof of guardianship. Frequent relocation, financial costs, inaccessibility to transportation, inadequate clothing and school supplies, and school concerns about liability also represent substantial barriers to school enrollment for homeless families (US Department of Education, 2002). According to the U.S. Department of Education, 87% of homeless school-age youths are enrolled in school but only 77% of these youths attend school regularly. In addition, less than 16% of homeless preschoolers are enrolled in preschool programs. In some American cities, over half of homeless children miss more than two weeks of school per year (US Department of Education, 2004). Related problems include loss of education, higher grade retention, and inappropriate placement in special education classes (Nunez, 2000; Rafferty, Shinn, & Weitzman, 2004).

A related but broader variable is poverty, which is also closely linked to school absenteeism. As noted earlier, American youths from families of lower income levels are much more likely to miss school than their peers. The link between poverty and school absenteeism has been well demonstrated in other countries as well (Population Council, 2006). For example, Zhang examined absentee rates in several United Kingdom schools and found significant correlations with child poverty level at primary (.70–.86) and secondary (.50–.56) schools. Although the reasons for this link are complex, family need for financial support from youths and poor parental involvement in the educational process, a topic discussed in more detail in a subsequent section, are likely contributors (Zhang, 2003).

### 7.2. Teenage pregnancy

Teenage pregnancy is also commonly associated with school nonattendance and dropout. Pregnancy and its complications often predispose youths to permanently leave school. In addition, sudden, frequent absenteeism may be a signal of pregnancy and accompanying symptoms to educators and others. Teenage mothers complete 1.9–2.2 fewer years of schooling than women who do not give birth prior to age 30. Odds of completing high school or college are greatly reduced as well, as only 60–80% of early childbearers complete high school (Hofferth, Reid, & Mott, 2001).

In a recent Brazilian study, pregnancy and having a child was the primary reason for females leaving school. Over twice as many females left school after pregnancy (36.7%) than before or during pregnancy (16.7%). A similar trend was evident for males (18.1% versus 40.4%) (Almeida et al., 2006). On the other hand, school absenteeism and dropout from teenage pregnancy decreases significantly with provision of family support, school-based prenatal services, and availability of alternative educational programs during postpregnancy (Barnet, Arroyo, Devoe, & Duggan, 2004).



### 7.3. School violence and victimization

According to the National Center for Education Statistics for 2004–2005, 583,000 violent crimes were committed against students aged 12–18 years. Of these crimes, 107,000 involved rape, sexual assault, robbery, and aggravated assault. Many male (10%) and female (6%) students in grades 9–12 were reportedly threatened or injured with a weapon on school property. This was especially so for Hispanic (10%) than European–American (7%) students. In addition, the percentage of public schools reporting at least one violent incident increased from 71% in 1999–2000 to 81% in 2003–2004. In 2005, 24% of students aged 12–18 years reported gangs at their schools; this was more common among urban (36%) than suburban (21%) or rural (16%) schools. In addition, 28% of students aged 12–18 years were reportedly bullied at school in the past six months. Most said bullying occurred 1–2 times in six months, but 25% were bullied 1–2 times per month, 11% were bullied 1–2 times per week, and 8% were reportedly bullied almost daily (National Center for Education Statistics, 2006b).

School shootings, related violence, and victimization of youth via bullying in American schools have led researchers to explore whether these phenomena are related to school absenteeism. The National Center for Education Statistics indicates that 6% of students avoided a school activity in the previous six months due to fear of attack or harm (National Center for Education Statistics, 2006b). Victims of bullies display higher rates of absenteeism than their peers (Dake, Price, & Telljohann, 2003). Students who have been bullied are 2.1 times more likely than other students to feel unsafe at school and 20% of elementary school students would reportedly skip school to avoid being bullied (Glew, Fan, Katon, Rivara, & Kernic, 2005). Among high school students, fear of attending classes because of violence is directly related to previous victimization by teachers or peers (Astor, Benbenishty, Zeira, & Vonokur, 2002). Missing school because of feeling unsafe is also a risk factor for asthma and potentially early dismissal from school (Swahn & Bossarte, 2006). Bullying and school refusal behaviors have been noted across cultures (Kawabata, 2001).

### 7.4. School climate and connectedness

School climate is also a key contextual factor for school absenteeism. School climate refers to student feelings of connectedness to their school and degree of support a student feels regarding academic, social, and other needs. School climate and connectedness may also include positive classroom management, participation in extracurricular activities, and tolerant disciplinary procedures. The extent to which students feel safe, accepted, valued, and respected at school is a key aspect of school connectedness as well (Brookmeyer, Fanti, & Henrich, 2006; McNeely, Nonnemaker, & Blum, 2002; Shochet, Dadds, Ham, & Montague, 2006).

School climate is moderately but significantly correlated with school attendance (.40) and inversely to school dropout (–.36). Class and school size, which are inversely related to school climate, are inversely related as well to school attendance (–.23/–.21) and positively related to school dropout (.24/.41) (Brookmeyer et al., 2006). All values are statistically significant. Others have found school climate to be inversely related to victimization by others (students, teachers, staff), the latter of which is positively related to student fear of attending school due to school violence (Astor et al., 2002). Students in smaller schools with more challenging courses, less grade retention, and more positive relationships with teachers are also less likely to drop out of school (Jimerson, Anderson, & Whipple, 2002; Lee & Burkham, 2003).

Boredom in school and inadequate school climate are a key reason why many youths miss school and eventually drop out (see Table 3) (Guare & Cooper, 2003; National Center for Education Statistics, 2006a). Boredom is a common reason as well why many youths prematurely leave after-school programs (Weisman & Gottfredson, 2001). Poor school climate may be linked to harsh and inflexible disciplinary practices, rigid regulations regarding school reintegration, school curricula not well tailored to a child's individual needs or interests, poor teaching and student–teacher relationships, inattention to diversity issues, and inadequate attendance management practices (Conroy, Conroy, & Newman, 2006; Reid, 2005). In a recent comprehensive survey of youths who dropped out of school, 47% said a major factor in their decision to leave school was that classes were uninteresting (Bridgeland, Dilulio, & Morison, 2006).

### 7.5. Parental involvement

Parental involvement in a child's educational progress is also commonly linked to academic achievement and attendance. No consensual definition exists for parental involvement, though the National Education Association

Table 3  
Percentage of high school sophomores who left school prematurely by reason

Reason for leaving school	Percentage
Missed too many school days	43.5
Thought it would be easier to get GED	40.5
Getting poor grades/failing school	38.0
Did not like school	36.6
Could not keep up with schoolwork	32.1
Became pregnant (females only)	27.8
Got a job	27.8
Thought could not complete course requirements	25.6
Could not get along with teachers	25.0
Could not work at same time	21.7
Had to support family	20.0
Did not feel belonged there	19.9
Could not get along with other students	18.7
Was suspended from school	16.9
Had to care for a member of family	15.5
Became father/mother of a baby	14.4
Had changed schools and did not like new one	11.2
Thought would fail competency test	10.5
Did not feel safe	10.0
Was expelled from school	9.9
Got married/planned to get married	6.8

Source: National Center for Education Statistics (2006a).

focuses on behaviors such as reading to a child, attending parent–teacher conferences, checking homework, limiting television on school nights, being active in the development and progress of a child’s school, and, presumably, monitoring a child’s school attendance.

The latter would ostensibly involve frequent parent–school official contact, but Guare and Cooper found that school officials failed to inform parents of a child’s unexcused absence in 57.9% of cases. Over half (51.0%) of students who cut class reported having never been caught for doing so, and 26.5% had been caught only once. In addition, 74.4% of students caught for skipping school were not punished by the school for doing so (Guare & Cooper, 2003). In another comprehensive survey of school dropouts, 59% of parents or guardians were involved in their child’s education and only 21% were very involved. Most parents of school dropouts who did become involved did so only for disciplinary reasons (Bridgeland et al., 2006).

School officials commonly lament that many parents are uninvolved in their child’s education and school attendance. Several researchers have ascribed this partially to cultural factors such as parent–school official language barriers and other cultural differences, lower family acculturation, parental opposition to a child’s distance from the family via pursuit of higher education, relaxed attitudes about developmental milestones or self-reliance skills, school-based racism and discrimination, and parental mistrust of school officials (Franklin & Soto, 2002). Past episodes of parent–school official conflict, extensive teacher absenteeism, low teacher expectations, and poor interactions between parents and school officials also reportedly cause many parents to be less involved in their child’s academic progress and attendance (Brand & O’Connor, 2004; Martinez, DeGarmo, & Eddy, 2004; Teasley, 2004). Students who drop out of school are also more likely than graduating peers to have parents and siblings who dropped out of school (Orfield, 2004).

### 7.6. Family and community variables

Parental involvement is a key aspect of a child attendance but broader family variables serve as important contextual risk factors as well. Previous work in this area reveals that families of youths with school refusal behavior are often marked by poor cohesion and considerable conflict, enmeshment, isolation, and detachment. Recent evidence affirms these findings (Chapman, 2007; Lagana, 2004). In the study of inpatient and outpatient youths with school attendance difficulties presented earlier, many reported conflict at home (43%) and family separation (21%) (McShane et al.,

2001). Increased school absenteeism and dropout risk has also been recently linked to parents with alcoholism (Casas-Gil & Navarro-Guzman, 2002). Conversely, decreased substance use in African–American dropouts has been associated with positive family relationships and religiosity (Kogan et al., 2005).

Other contextual risk factors have been linked to absenteeism, though greater empirical data to support these links are needed. These factors include divorce, child self-care, problematic neighborhoods, and maltreatment. McShane and colleagues reported that only 54% of youths with school attendance difficulties lived with an intact, two-parent family and that 39% lived with a single parent. Youths living in disorganized, unsafe, or unsupportive neighborhoods that include poor adult supervision of attendance and high rates of child self-care are at substantial risk for absenteeism as well (Chapman, 2003; Crowder & South, 2003; Henry, 2007; Reid, 2005).

Maltreated youths are more likely than nonmaltreated peers to miss school. This may be due to parents who attempt to conceal maltreatment, child hospital stays or recovery time from maltreatment, and psychiatric sequelae of abuse. Conversely, however, some maltreated children attend school assiduously or linger after school to avoid going home (Kearney, 2001). In addition, many jurisdictions consider chronic absenteeism from school to be a form of educational neglect under which parents may be prosecuted. Youths placed in foster care may also be at greater risk for school absenteeism (Taussig, 2002).

## 8. Cross-cultural variables

Research regarding school absenteeism and school refusal behavior has come historically and primarily from samples in the United States, United Kingdom, Canada, and Australia. In recent years, however, research attention on these topics has burgeoned in other European countries as well as nations such as South Africa, Japan, Saudi Arabia, and India (Al-Dalwood, 2002; Ananthkrishnan & Nalini, 2002; Liang, Flisher, & Chalton, 2002; Nishida, Sugiyama, Aoki, & Kuroda, 2004). Remarkably, many findings from these studies mirror those of historical studies. First, great heterogeneity is seen with respect to symptomatology. Second, comorbid psychiatric diagnoses evident in children with school attendance difficulties largely include anxiety, depressive, and disruptive behavior disorders. Third, poverty and chronic illness are quite clearly associated with absenteeism. Finally, emphasis is made on specialized intervention conducted in close conjunction with family members, school officials, and other relevant agencies (Holzer & Halfon, 2006; Lehmkuhl & Lehmkuhl, 2004).

Some authors have discussed variables related to school absenteeism that are idiosyncratic to culture. Much of this comes from an escalating Japanese literature on school refusal behavior. Kameguchi, for example, noted that Japanese schools often overemphasize uniformity and intense pressure to perform well on curriculum-based examinations. Children whose academic or interpersonal needs are ignored by teachers in this rigid system have been prone to absenteeism. In addition, the traditional three-generation household in Japan has deteriorated in recent years, leading to higher divorce rates, urbanization, and work hours among mothers. These forces are thought to contribute to the sudden increase in school refusal behavior among Japanese youth (Kameguchi, 2004). In general, however, cross-cultural aspects of school absenteeism and school refusal behavior remain in need of greater exploration and explication.

## 9. Assessment

The assessment of school absenteeism per se traditionally involves measuring days or periods of time a child is out of school. Other pertinent variables include child resistance going to school and having to be taken to school by a parent (Egger et al., 2003). Researchers often rely on parent and child report as well as school attendance records to monitor absenteeism. When absenteeism is associated with psychiatric conditions or school refusal behavior, however, assessment becomes broader.

Traditional methods of assessing school refusal behavior include structured diagnostic interviews, child self-report measures of internalizing problems (fear, anxiety, depression, worry, self-efficacy, problematic cognitions), and parent and teacher reports of internalizing and externalizing problems (rule-breaking, aggression, noncompliance, running away from home/school) (Hanna, Fischer, & Fluent, 2006; King, Heyne, Tonge, Gullone, & Ollendick, 2001). In addition, parents and children may be encouraged to complete daily logbooks that assess attendance, difficulties preparing for and entering school, level of emotional distress, and defiance and other misbehaviors as well as parent and teacher reactions. A full medical examination and reviews of psychiatric, academic, legal, and other pertinent records are commonly recommended for this population as well (Heyne, King, Tonge, & Cooper, 2002; Kearney,

2003). Specific questions that family physicians may submit to parents of youths with school refusal behavior, with other recommendations for assessment, have been presented in recent literature (Kearney, 2006a).

The development of measures specific to youths with school refusal behavior has advanced recently. Of particular note is the School Refusal Assessment Scale-Revised, a 24-item measure with parent and child versions designed to assess the relative strength of four functions of school refusal behavior mentioned earlier (avoidance of school-related stimuli that provoke negative affectivity, escape from aversive social and/or evaluative situations, pursuit of attention from significant others, pursuit of tangible reinforcers outside of school). The scale in original and revised form has demonstrated good reliability, validity, and utility. A recent confirmatory factor analysis affirmed the four-factor structure of the scale (Brandibas, Jeunier, Clanet, & Fouraste, 2004; Brandibas, Jeunier, Gaspard, & Fouraste, 2001; Higa, Daleiden, & Chorpita, 2002; Kearney, 2002a,b). The scale has been used successfully to assign prescriptive intervention, or intervention tailored to the individual characteristics of a child with school refusal behavior (see Intervention section).

The School Avoidance Scale and School Refusal Personality Scale have also been recently designed to assess youth dislike of school and desire to leave school. The latter scale purportedly measures obsessive–compulsive, passive–unsocial, and socially introverted behavior in this population. Scores on both scales have been linked to depression, a particularly common phenomenon among youths with anxiety-based absenteeism (Honjo et al., 2003). Although these measures represent great strides in assessing youths with problematic absenteeism, more specific and consensual protocols for evaluating this population to increase comparability across studies are needed (Kearney, 2003).

## 10. Intervention

Intervention for youths with school attendance difficulties includes a wide gamut from medical to clinical to systemic interventions. Recent developments regarding each set of interventions are discussed next.

### 10.1. Medical

The primary medical intervention for youths with problematic absenteeism has focused on those with anxiety-based problems such as generalized, social, or separation anxiety disorder. Pharmacotherapy for this population has mainly included tricyclic antidepressants, selective serotonin reuptake inhibitors (SSRIs), benzodiazepines, buspirone, beta-blockers such as propranolol, and antiepileptics such as gabapentin (Bernstein et al. 2000; Durkin, 2002; Fourmeret, Desombre, De Villard, & Revol, 2001; Heyne, King, Tonge, & Cooper, 2001; Masi, Mucci, & Millepiedi, 2001). Imipramine (3 mg/kg/d), fluoxetine (10–20 mg/d), fluvoxamine (50–250 mg/d), sertraline (85–160 mg/d), and paroxetine (10–50 mg/d) have been found useful for some youths with anxiety and depression and possibly comorbid school refusal behavior (Kearney, 2006c).

A recent follow-up study of school refusal youths treated with imipramine revealed that prognosis was better for youths with higher baseline rates of attendance and poorer for youths with comorbid separation anxiety and avoidant disorder (Layne, Bernstein, Egan, & Kushner, 2003). In general, however, youths with anxiety-based absenteeism respond ambiguously to medication, in part because of the fluid and amorphous nature of anxiety and depressive symptoms in this population (Tyrrell, 2005). Intense side effects of SSRIs, including suicidal behavior, must be monitored closely as well. Finally, studies regarding medications to treat non-anxiety-based school refusal behavior are virtually nonexistent.

Other somatic procedures have been used for youths with school attendance difficulties, including procedures to address the myriad physical conditions associated with absenteeism. With respect to the most common physical condition associated with absenteeism, several school-based and pediatric primary care asthma management programs have been developed. These programs are designed to increase parent and child education about the disease, physical conditioning, child monitoring of daily symptoms, peak flow meter use, contact with a physician, corticosteroid use, and appropriate school official responses to asthma attacks (Clark et al., 2004; Halterman et al., 2004; Rance & Trent, 2005; Tinkelman & Schwartz, 2004; Welsh, Kemp, & Roberts, 2005). A recent wide-ranging review of these programs revealed significant decreases in school absenteeism and number of days of restricted activity (Guevara, Wolf, Grum, & Clark, 2003). Other somatic procedures that have helped reduce absenteeism include comprehensive handwashing and use of hand sanitizers and mass FluMist immunization in schools (Guinan, McGuckin, & Ali, 2002; Meadows & Le Saux, 2004; Wiggs-Stayner et al., 2006). Addressing true medical conditions related to school refusal behavior is obviously imperative as well (Stein, Duffner, Werry, & Trauner, 2001).

## 10.2. Clinical

Clinical intervention for problematic school absenteeism has primarily focused on reducing symptoms associated with school refusal behavior, especially anxiety and depression. Toward this end, cognitive–behavioral strategies have been most popular and empirically supported. These strategies are designed to help youths effectively manage physical symptoms of stress and anxiety, modify irrational thoughts related to school attendance, and gradually reintegrate into a particular school setting (Heyne et al., 2001). Techniques most central to this approach include relaxation training, cognitive restructuring, and exposure-based practices. These techniques have been empirically supported across various case studies as well as open, randomized, and nonrandomized clinical trials. Recent research has provided additional confirmation (Barnes, Bauza, & Treiber, 2003; Heyne et al., 2002; King, Tonge, Heyne, & Ollendick, 2000). Hypnosis has also been found effective for reducing stress and increasing attendance in adolescents with school refusal, but this approach is not widely used for this population (Aviv, 2006).

A key drawback to most cognitive–behavioral intervention approaches in this area is that researchers generally focus on youths with anxiety-based absenteeism (Heyne et al., 2002; Layne et al., 2003). Youths who refuse school for other reasons or who have externalizing behavior problems are often excluded. Kearney and colleagues thus designed prescriptive intervention strategies for youths who refuse to attend school for the four functions mentioned earlier (see Table 4). These functions cover all youths who refuse to attend school, and effective, specific intervention packages can be prescribed based on assessment data that include School Refusal Assessment Scale-Revised scores, interviews, direct observations, and other information (Kearney, 2002b; Kearney, Pursell, & Alvarez, 2001; Kearney & Silverman, 1999; Moffitt, Chorpita, & Fernandez, 2003). These intervention packages are available in manualized and self-directed format (Kearney, 2007b; Kearney & Albano, 2007a,b).

As research into the clinical intervention of youths with school refusal behavior progresses, greater attention will likely be needed to family and other contextual variables that impinge on this population. Several researchers have called for more extensive interventions that include cognitive–behavioral strategies as well as family therapy, social skills training to better develop peer relationships, and frequent consultation with physicians and school officials (Gosschalk, 2004; Kearney & Bates, 2005; Lauchlan, 2003; Moffitt et al., 2003; Place, Hulsmeier, Davis, & Taylor, 2000). In addition, researchers have called for more systemic interventions in conjunction with medical and clinical

Table 4  
Prescriptive interventions based on function of school refusal behavior

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1. Refusing school to avoid school-based stimuli that provoke negative affectivity (child-based)	<ul style="list-style-type: none"> <li>Psychoeducation regarding anxiety and its components</li> <li>Somatic management techniques such as relaxation training and deep diaphragmatic breathing</li> <li>Gradual re-exposure to school setting using anxiety and avoidance hierarchy</li> <li>Self-reinforcement of gains</li> </ul>
2. Refusing school to escape aversive social and/or evaluative situations (child-based)	<ul style="list-style-type: none"> <li>Psychoeducation regarding anxiety and its components</li> <li>Somatic management techniques such as relaxation training and deep diaphragmatic breathing</li> <li>Cognitive restructuring to modify irrational thoughts</li> <li>Practicing coping skills in real-life social and evaluative situations</li> <li>Gradual re-exposure to school setting using anxiety and avoidance hierarchy</li> <li>Self-reinforcement of gains</li> </ul>
3. Refusing school to pursue attention from significant others (parent-based)	<ul style="list-style-type: none"> <li>Modify parent commands toward brevity and clarity</li> <li>Establish a set morning routine prior to school as well as daytime routines as necessary</li> <li>Establish rewards for attendance and punishments for nonattendance</li> <li>Forced school attendance in specific cases</li> </ul>
4. Refusing school to pursue tangible rewards outside of school (family-based)	<ul style="list-style-type: none"> <li>Contingency contracting that involves increasing incentives for attendance and disincentives for nonattendance</li> <li>Establish times and places for family members to negotiate problem solutions</li> <li>Communication skills training</li> <li>Escorting a youth to school and classes as necessary</li> <li>Increasing monitoring of attendance</li> <li>Peer refusal skills training (to refuse offers from others to miss school)</li> </ul>

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approaches to effectively treat youths with severe or chronic school attendance difficulties. These systemic approaches are described next.

### 10.3. Systemic

Systemic intervention for school absenteeism refers to school- or community-wide approaches to reduce absenteeism in youth. The National Dropout Prevention Center lists systemic strategies found useful for reducing absenteeism and dropout. These strategies generally involve (1) school–community partnerships to improve the safety and infrastructure of schools, (2) early intervention programs to boost family engagement, early academic enrichment, and reading and writing skills, (3) alternative educational and after-school programs to help students receive their diploma, and (4) professional development programs to better prepare teachers to work with at-risk youth as well as individualized and flexible instruction to better meet the academic needs of a given child.

Systemic strategies to reduce absenteeism may also involve ideas more specific to individual cases. An important model in this regard is coordination of school-based and other services for impoverished children. In this model, schools provide early intervention and after-school programs to meet a child's educational needs, but these programs are linked directly to human service agencies (Bowen & Richman, 2002). Kearney and Bates, for example, recommended that school-based social workers help families coordinate educational and other services. This can be done by arranging a weekly meeting with parents, teachers, medical personnel, mental health professionals, juvenile detention officers, and representatives from housing, employment, and legal services agencies as necessary. This would preclude asking families to arrange multiple trips during the week to procure services and help develop an overarching plan for monitoring a child's school attendance and achievement (Kearney & Bates, 2005).

Other specific systemic strategies for reducing absenteeism and dropout are listed in Table 5 (with accompanying references from recent literature). Key aspects of many of these programs are to eliminate barriers to attendance, such as school-related violence and language differences, as well as to increase monitoring of attendance and provide swift consequences and return to school following unexcused absence. Providing alternative educational opportunities and individualized instruction, increasing parental involvement and incentives for attendance, assigning adult and peer mentors to youths at-risk for prematurely leaving school, and employing flexible school-based responses to chronic attendance problems are particularly effective strategies (Kearney & Hugelshofer, 2000; Reid, 2003b; Scott & Friedli, 2002).

## 11. Outcome

As mentioned earlier, youths with chronic school absenteeism and school refusal behavior are at risk for delinquency and school dropout in adolescence and various economic, psychiatric, social, and marital problems in adulthood. In fact, school refusal has been identified as a key variable for the persistence of separation anxiety disorder into adulthood (Silove et al., 2002). Youths who receive intervention for these problems may be at less long-term risk, however.

McShane and colleagues followed 117 adolescents with school attendance difficulties 6 months and three years following inpatient or outpatient intervention. At 6-month follow-up, adolescents had either resumed schooling (47%), enrolled in home schooling or vocational college with some employment (23%), were unemployed (19%), enrolled in home schooling (10%), or were fully employed (1%). At 3-year follow-up, adolescents were enrolled in home

Table 5  
Systemic strategies relevant for reducing absenteeism

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Reducing violence, bullying, and parent/child-school official conflict (Astor, Meyer, Benbenishty, Marachi, & Rosemond, 2005; Woody, 2001)
Increasing parent–teacher collaboration, particularly in cases of ethnic differences (Broussard, 2003)
Increasing positive school climate and easing transitions between schools (Reid, 2003a)
Customizing curriculum and instruction to student needs with advocates/mentors (Lever et al., 2004; Reid, 2007)
Early education, family, and health services (Reynolds, Temple, Robertson, & Mann, 2001)
Court referral and community services (Fantuzzo, Grim, & Hazan, 2005; Garrison, 2006; McCluskey, Bynum, & Patchin, 2004; Schoenfelt & Huddleston, 2006)
Police pick-up of absentee students with immediate school return and consequences (White, Fyfe, Campbell, & Goldkamp, 2001)

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schooling or vocational college with some employment (36%), remained in school (22%), were fully employed (18%), were unemployed and not in education (16%), or were in home schooling (8%) (McShane, Walter, & Rey, 2004).

Poorer outcome at 6 months was associated with comorbid diagnoses such as major depression, dysthymia, and oppositional defiant disorder. Poorer outcome at 3 years was associated with social phobia, academic difficulties, and withdrawn behavior. Although outcome was satisfactory for 70–76% of adolescents, these results mirror earlier findings that about one-third of youth treated for school attendance difficulties continue to have serious adjustment problems later in life (Kearney, 2001). Other researchers have also found, over a 10-year follow-up period, that 30% of youths with school refusal continued to meet criteria for a psychiatric disorder (McCune & Hynes, 2005).

Predictors of school dropout in recent studies reveal several individual factors to be particularly salient, especially psychiatric comorbidity, adolescent employment, and low socioeconomic status. However, researchers have begun to gravitate toward developmental models of problematic absenteeism, contending that multiple predictors compound over time to produce premature departure from school. These multiple predictors include socioeconomic, behavioral, family, and attitudinal variables (Alexander, Entwisle, & Kabbani, 2001; Attwood & Croll, 2006; Jimerson, Egeland, Sroufe, & Carlson, 2000; Warren & Lee, 2003).

In one possible scenario, for example, a child may be initially predisposed toward absenteeism via placement in family and educational systems that do not closely monitor or value school achievement and attendance. During middle school, adverse events such as bullying or teacher–student conflict could exacerbate achievement and attendance difficulties or may intertwine with undiagnosed child psychopathology such as anxiety, depression, or learning disorder. Problematic absences or dropout may escalate in high school years as these increasingly severe problems lead to school failure or may intersect with new alternatives to school attendance, such as outside employment. More extensive longitudinal research is necessary, however, to specifically identify pathways leading to chronic nonattendance and eventual dropout.

## 12. Final comments

School absenteeism and school refusal behavior continue to represent critical public health problems for educators and health and mental health professionals. A key problem with the research literature in this area, however, is a general disconnection between sets of professionals who use varying terminology, publish in different journals, and investigate only specific subsets of youths with problematic absenteeism. Greater coordination and synthesis of research information is necessary to fully understand and address this complex population. Cross-disciplinary investigations, conferences, and grant proposals, for example, might be helpful in leading to improved consensus regarding definition, classification, assessment, and intervention. Pertinent disciplines include psychology, medicine, education, social work, criminal justice, law, and sociology. In addition, mental health professionals within schools should educate teachers and others about symptoms and assessment and intervention methods for school refusal behavior.

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