
Protocol:
Psychosocial Interventions for School Refusal Behavior With Elementary and Secondary School Students

Brandy R. Maynard, Kristie E. Brendel, Jeffrey J. Bulanda, Terri Pigott

Submitted to the Coordinating Group of:

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BACKGROUND

The Problem, Condition or Issue

School refusal behavior is a psychosocial problem for students characterized by severe emotional distress and anxiety at the prospect of going to school, leading to difficulties in attending school and, in some cases, significant absences from school (Kahn, Nursten, & Carroll, 1981). In addition to severe emotional upset, researchers have differentiated school refusal from truancy in terms of two other features: children who exhibit school refusal behavior remain at home *with* their parents' knowledge, and they do not exhibit characteristics of conduct disorder (Elliot, 1999; Heyne, King, Tonge, & Cooper, 2001).

In the past two decades, the conceptualization and definition of school refusal behavior has evolved. Discussion has ensued in the literature as to whether school refusal behavior should encompass any reason for students being absent from school, as Kearney (2007) suggests, or whether school refusal behavior should be distinguished from truancy as a different type of school attendance problem, as Heyne and colleagues (2001) recommend. Although there is no definitive consensus, there seems to be general agreement among a number of scholars in this area that there are different types of "nonattenders" (Elliott, 1999; Heyne et al., 2001). Scholars have described school refusal behavior fairly consistently, with a few exceptions (e.g., Kearney, 2008), as a subtype of nonattender: students who have attendance difficulties resulting from emotional distress. Although there is a lack of consistency in the literature regarding the operationalization of school refusal, this review will adopt the definition of school refusal as school non-attendance associated with anxiety or distress.

The prevalence of school refusal behavior is difficult to ascertain, due to the discrepancy in how school refusal is defined and lack of any national reporting; however, most researchers estimate that less than 5% of school-age children exhibit school refusal behavior (Burke & Silverman, 1987; Elliott, 1999; Fremont, 2003; King, Ollendick, & Tonge, 1995; Ollendick & Mayer, 1984). The prevalence of school refusal is similar across socioeconomic groups and gender but is more common between the ages of 5 and 8 and 10 and 15, when children are either starting school or experiencing transitions between schools (Fremont, 2003; Heyne et al., 2001; Last & Strauss, 1990). Children who present with school refusal may meet criteria for multiple internalizing and externalizing behavior problems, including anxiety, depression, phobia, separation anxiety, aggression, temper tantrums, and non-compliance (Egger, Costello, & Angold, 2003; Heyne et al., 2001; Kearney, 2001).

School refusal is a complex problem that has been found to have multiple causes and be maintained by factors across the child's ecology (Thambirahah, Grandison, & De-Hayes, 2008). The onset of school refusal can occur gradually, either with no obvious etiology or as a result of a specific trigger. Stressors implicated in the onset of school refusal behavior include illness, problematic family dynamics, traumatic experiences, and school-related factors (Kearney & Bates, 2005). Individual factors associated with school

refusal include personality characteristics, such as introversion, temperament, low self-confidence, and behavioral inhibition (Thambirajah et al., 2008). Family factors include increased rates of panic disorder and agoraphobia in parents of children with school refusal behavior, dysfunctional family interactions (e.g., overdependency, conflict, detachment, and isolation of family members), and poor communication (Bernstein & Borchardt, 1996; Martin, Cabrol, Bouvard, Lepine, & Mouren-Simeoni, 1999). Individual, family, and school context appear to be important to understanding the causes as well as the maintenance of school refusal behavior.

Children and parents experience significant adverse consequences from school refusal. A child may miss an excessive number of days of school, leading to poor academic performance and disruptions in social and extracurricular activities (King & Bernstein, 2001). School refusal may also negatively affect family and peer relationships (Berg & Nursten, 1996). Long-term problems in social adjustment may also occur, including psychiatric disturbance (Heyne et al., 2001).

The Intervention

Psychosocial interventions for youth who exhibit school refusal behavior generally fall into one of four categories: behavioral approaches, cognitive-behavioral therapy (CBT), family therapy, and non-behavioral, non-CBT individual therapy. All psychosocial interventions that aim to increase attendance and decrease anxiety in school-age youth who exhibit school refusal behavior will be eligible for inclusion in this review. Because we are interested in psychosocial interventions that can be implemented by school or mental health professionals, we will exclude solely pharmacological and medical interventions from this review; however, we will include studies that use pharmacotherapy as part of a psychosocial intervention.

Psychosocial interventions for reducing school refusal behavior can vary in format, duration, setting, treatment components, and intervention targets. The formats can include individual, group, and/or family interventions. Duration can vary from brief interventions (6–8 weeks) to interventions that span across a school semester or school year. Interventions are most commonly delivered in a school or clinic setting. Treatment components can vary as well. Although most school refusal interventions involve CBT, they employ a number of different strategies that vary from program to program. School refusal interventions are generally either child or parent-focused. Master's or doctoral therapists generally deliver school refusal behavior interventions to children individually or in a group setting and to parents in the form of parental skills training.

How the Intervention Might Work

Behavioral interventions for the treatment of school refusal typically employ relaxation training, exposure-based strategies, contingency management, and/or social skill training techniques to reduce the children's fears and anxiety and help them return to school. Relaxation training involves teaching children to employ strategies to relax or calm themselves when presented with stressful or anxiety provoking situations. In the

case of school refusal behavior, relaxation training is employed as a means of reducing feelings of psychological and physiological arousal and somatic symptoms associated with school or separation from a parent (King, Heyne, & Ollendick, 2005). Exposure-based interventions, such as systematic desensitization and flooding, have also been utilized in the treatment of school refusal behavior. Exposure-based interventions are designed to expose children to the stressful event (i.e., returning to school) to help them overcome their avoidance to school, either in the slow, gradual manner utilized with systematic desensitization, or the forced, rapid return to school utilized with the flooding technique. Contingency management, drawing from operant conditioning principles, is another commonly utilized behavioral intervention to treat school refusal behavior (Elliott, 1999). Contingency management involves providing home or school-based rewards to attend school and increase the amount of time children stay in school. Social skills training is a commonly utilized behavioral intervention for children who exhibit school refusal behavior as a result of poor peer relationships or social anxiety (King et al., 1998). Social skills training frequently focuses on teaching assertiveness and other social skills through the use of modelling and rehearsal of strategies; such skills should help children better prepare for and cope with social interactions with peers or teachers and reduce social anxiety. Behavioral interventions are employed directly with students and/or their parents. Family interventions using behavioral strategies typically train the parents in behavioral management and contingency contracting techniques, which parents can then implement in the home. Skills training to enhance parenting and problem-solving skills are often included as well (Elliot, 1999; Fremont, 2003; Kearney & Bates, 2005).

Combining behavioral interventions with cognitive therapy, cognitive-behavioral interventions (CBT) employ the use of cognitive therapy to challenge inappropriate or problematic beliefs that may be contributing to students' anxiety and refusal to attend school. Therapists assist students in identifying, monitoring, and replacing faulty beliefs with more adaptive self-statements to decrease anxiety related to their refusal to attend school (Elliott, 1999). Cognitive-behavioral interventions may be delivered individually or in group settings. In addition, CBT may also be delivered with parents or families. For parents, CBT is generally designed to help parents understand their role and reduce anxiety and faulty cognitions that may be contributing to their child's anxiety and refusal behavior. In addition, CBT for parents and families can involve training parents to use behavior management strategies to reinforce their children's return to school.

Behavioral and cognitive-behavioral approaches have received the most attention in prior reviews; however, a range of additional strategies have been used in the treatment of school refusal behavior. A broad range of theoretical models targeting different mechanisms informs these approaches. Non-CBT and non-behavioral psychosocial school refusal interventions typically target the mechanisms contributing to anxiety as hypothesized by the model being utilized. Psychosocial interventions outside of behavioral or CBT models include educational-support strategies and non-CBT individual and family therapy. The strategies employed by these approaches range from providing information and supportive psychotherapy to assist students in understanding

and overcoming their fears and anxieties about school, to family therapy techniques aimed at changing family functioning and dynamics that are hypothesized to contribute to the child's anxiety and difficulty attending school—such as family conflict, enmeshed or detached family relationships, and fear and anxiety of the parents.

Why it is Important to do the Review?

Although there have been systematic reviews and meta-analyses conducted on the effects of interventions for children and adolescents with anxiety disorders (see Brendel, 2011; Ishikawa, Okajima, Hirofumi, & Sakano, 2007), we have not located a systematic review or meta-analysis of interventions focused specifically on school refusal behavior. A number of narrative reviews on the topic of school refusal behavior are available and summarized in Appendix A. Prior reviews on school refusal behavior have focused on what is known about school refusal behavior in terms of etiology, prevalence, assessment, and treatment; however, few prior reviews have focused specifically on intervention outcomes. Reviews that have focused more specifically on outcomes of interventions have not employed systematic review methods or meta-analytic techniques to quantitatively synthesize the results.

King and colleagues (King et al., 2005; King, Tonge, Heyne, & Ollendick, 2000) conducted two reviews of school refusal intervention outcome studies. The 2000 review included eight published studies of CBT interventions using a range of research designs. Their report concluded, “At first glance, our review of research suggests empirical support for cognitive-behavioral therapy in the treatment of school refusal...” (p. 501). “However, since very few controlled studies have been reported at this stage in treatment research, it would be premature to extol the clinical virtues of cognitive-behavior therapy” (p. 506). King et al.'s 2005 review focused on a broader topic of anxiety and phobic disorders and included seven studies examining effects of behavioral or CBT interventions with school refusal behavior. Although the authors used substantially the same studies in both reviews, the two reviews came to different conclusions. In the 2005 study, the authors concluded, “Overall, school refusal has responded to CBT programs as demonstrated in a number of controlled studies, with general maintenance of gains” (p. 249).

Prior reviews of school refusal intervention research have been limited to published research and have primarily employed either qualitative or vote-counting methods for synthesizing study outcomes. Moreover, the existing reviews of school refusal behavior have tended to focus on CBT interventions. Taken together, the past reviews are very important to our understanding of school refusal behavior and can provide some evidence to guide interventions; however, they do not systematically or quantitatively address the question of whether and which interventions are effective for increasing school attendance and decreasing anxiety for children exhibiting school refusal behavior.

This proposed systematic review will expand and improve upon prior work in several ways. First, this review will apply a systematic and transparent process for searching, retrieving, and coding studies, including the search for unpublished studies. Using a

systematic method to conduct the review of outcome research limits bias and reduces chance effects, leading to more reliable results (Cooper, 1998). Searching for unpublished studies could produce additional studies that have not been included in prior reviews. Further, explicitly and transparently describing the review process allows for others to replicate and expand the review to include new studies or criteria.

Second, this review will seek to include evaluations of a variety of interventions operating in a broader set of geographical contexts than previous reviews, including programs across the United States and other countries. This broader reach will allow for the possibility of identifying studies that may not have been included in previous reviews.

Lastly, prior reviews have been limited to a narrative approach, presenting a description of programs or using a vote-counting method to categorize outcomes of programs as significantly positive, significantly negative, or of no significance. The vote-counting method, however, disregards sample size, relies on statistical significance, and does not take into account measures of the strength of the study findings, thus leading to erroneous conclusions (Glass, McGaw, & Smith 1981). Meta-analysis, on the other hand, represents key findings in terms of effect size, rather than statistical significance. Thus, meta-analysis provides information about the strength and importance of a relationship, the magnitude of the effects of the interventions, and the characteristics of effective interventions.

OBJECTIVES

The purpose of this review is to inform practice and policy by evaluating the effectiveness of interventions designed to increase school attendance and decrease anxiety for students who exhibit school refusal behavior. The following research questions guide this study:

- 1) Do interventions targeting school refusal behavior affect attendance?
- 2) Do interventions targeting school refusal behavior affect anxiety?
- 3) Does the magnitude of effects differ between CBT interventions and non-CBT interventions?

METHODOLOGY

Criteria for including studies in the review

Types of studies: To be eligible for inclusion in the review, studies must use an experimental or quasi-experimental design. Studies must include a comparison of treatment and control conditions to which students are randomly assigned or nonrandomly assigned. In addition, studies must either match on pretests, risk factors, and/or other relevant characteristics, use statistical controls, or report baseline data to examine group equivalence. This review will not include single-group pretest-posttest studies or other study designs.

Types of participants: This review will include school-age youth, defined as attending kindergarten through 12th grade (or equivalent in countries with a different grade structure), who meet criteria for school refusal behavior. Because there is no consensus on what constitutes a “diagnosis” of school refusal behavior, this review will include only studies in which participants have both an attendance problem and anxiety or a similar clinical symptom(s) related to stress, mood, or anxiety that affects their school attendance. We will exclude studies in which participants have dropped out of school.

Types of settings: The review will include interventions conducted in any setting that serves primary or secondary school students. This review will not include studies conducted in residential facilities, as these settings are highly controlled and not typical of regular school settings.

Types of intervention: This review will include all psychosocial intervention types.

Types of outcomes: To be included, a study must assess intervention effects on school attendance and anxiety.

Geographical context: This review will include studies from any geographical context. The authors will make every attempt to translate studies in languages other than English for inclusion in the review. If translating a study is not possible due to a lack of resources, the authors will note the study but not otherwise include it in the review.

Time period: This review will include studies published between 1980 and the present, even though the research itself might have been conducted prior to 1980. Focusing on the past 30 years will lead to a comprehensive and contemporary review of interventions.

Exclusion criteria: As defined above, we will exclude studies that involve only medication, are conducted in a residential setting, or are conducted with youth who have dropped out of school.

Search strategy

We propose to include all studies that meet the inclusion criteria outlined above. We will attempt to identify and retrieve both published and unpublished studies. We will use several sources to identify eligible studies, including the following:

- 1) Electronic databases
- 2) Research registers
- 3) Grey literature search
- 4) Bibliographies of previous literature reviews and retrieved studies

Databases

- 1) Academic Search Premier

- 2) Australian Education Index
- 3) British Education Index
- 4) CBCA Education
- 5) Dissertation Abstracts International
- 6) Education Complete
- 7) ERIC
- 8) FRANCIS
- 9) MEDLINE
- 10) PsycInfo
- 11) Social Science Citation Index
- 12) Social Service Abstracts
- 13) Social Work Abstracts
- 14) Sociological Abstracts
- 15) Web of Science

Research Registers

- 1) Cochrane Collaboration Library
- 2) Database of Abstracts of Reviews of Effectiveness
- 3) National Technical Information Service
- 4) System for Information on Grey Literature

Search Terms and Keywords

Database-specific strategies will be explored for each database (i.e., age limiters) and thesauri will be consulted to utilize more precise search strategies within each database. We will use combinations of the following terms and keywords related to the outcomes of interest, intervention, and population to search the electronic databases:

- 1) Outcome: attendance OR absen* OR anxiety OR “school refus*” OR “school phobia” OR “school anxiety”

AND

- 2) Intervention: evaluation OR intervention OR treatment OR outcome OR program

AND

- 3) Targeted population: student* OR school* OR child* OR adolescen*

Grey Literature Search

A search for grey literature will be conducted via the following strategies:

- 1) Internet searches: Google and Bing will be searched utilizing the above key words employing Boolean logic and limiting the search to .gov and .edu domains.
- 2) Authors of prior studies and reviews will be contacted to request unpublished papers.
- 3) Conference proceedings: Proceedings of recent meetings of the American Psychological Association, American Psychiatric Association, Society for Social Work Research and the American Education Research Association will be scanned for eligible studies.
- 4) Government websites: Searches on the Institute of Education Sciences What Works Clearinghouse (WWC) and on the Substance Abuse and Mental Health Services Administration (SAMHSA) websites will be conducted.

Reference Lists

We will review reference lists of prior reviews and related meta-analyses for relevant studies. In addition, we will examine the references of the retrieved primary studies for potential studies relevant to the review.

Description of Methods Used in Primary Research

Studies to be included in this review will employ experimental or quasi-experimental research designs that compare outcomes for an intervention group to those for a control or comparison condition. Most potentially eligible studies include both pretest and posttest measurements. Pretest measurements generally occur at or immediately prior to the beginning of the intervention. Posttest measurements generally occur at the end of the intervention. The posttest measurements comparing the intervention and comparison conditions are the key outcome measurements of interest for the proposed review. Some studies may measure outcomes at time points following the posttest measure which will be considered as follow-up measures.

One study that exemplifies the methods likely to meet the eligibility criteria for the proposed review is a study of a cognitive-behavioral intervention conducted by King et al. (1998). In this study, thirty-four school-refusing children were randomly assigned to a cognitive-behavioral treatment condition or a waiting-list control condition. Treatment consisted of individual child cognitive-behavioral therapy plus parent/teacher training in child behavior management skills. Pretest and posttest measures reported of interest to this review included attendance and scores on the Revised-Children's Manifest Anxiety Scale.

Criteria for Determination of Independent Findings

We are interested in two primary outcomes for this review: attendance and anxiety. All codable effect sizes for these two outcomes will be extracted, and each outcome construct will be analyzed separately. We expect that some studies will provide more than one effect size for attendance and/or anxiety (e.g., report two measures of anxiety). This circumstance creates statistical dependencies that violate the assumptions of standard meta-analysis methods. In the case where the construct is measured in more than one way, we will retain only one of the effect sizes in the analysis. We will select the measure that has better psychometric properties, or, if there is a measure that is commonly used across several studies to measure the same construct, we will retain the effect size for the analysis using the common measure.

In cases where there are multiple points of follow-up for a given outcome measure, we will record all points of follow-up and conduct a separate analysis for effect sizes at similar points of follow-up. If there are an adequate number of studies with longitudinal follow-up, we will examine changes in effect sizes over time.

In cases where we encounter studies with multiple outcomes for dependent or overlapping samples (e.g., multiple treatments compared against one control group), we will code all of the effect sizes but only include one treatment/control comparison in the meta-analysis. We will select the primary, or most relevant, treatment being tested to include in instances where both treatments are within the subgroup pooled.

As some studies may be reported in multiple reports or multiple reports reported in single studies, care will be taken to ensure that the studies are reporting independent findings. If it is unclear whether reports and studies provide independent findings, the authors of the reports will be contacted.

Details of Study Coding Categories

We will code all studies meeting the inclusion criteria by using a coding instrument specifying the information to be extracted from each eligible study (see Appendix B). The coding instrument will include items related to bibliographic information and source descriptors; methods and procedures; context, nature, and implementation of the

intervention; sample characteristics; and outcome data needed to calculate effect sizes.

To ensure reliability of coding procedures and decisions, the second and third authors will independently code 100% of the included studies and will compare coding decisions for all studies. These authors will discuss any inter-rater differences to refine coding schemes and resolve any discrepancies. The coders will consult the first author if they cannot resolve coding discrepancies, and the first author will make the final coding decision. We will use Excel to manage data and conduct descriptive analysis. We will use Comprehensive Meta-Analysis 2.2 to conduct meta-analysis.

Statistical Procedures and Conventions

We anticipate using standardized mean difference effect sizes for outcomes on continuous measures and odds ratios for outcomes presented as dichotomous variables. Main effects and moderator analysis will be conducted separately on each outcome construct with the latter done as multivariate (meta-regression) analysis when possible. Random effects statistical models will be used throughout unless a compelling case arises for fixed effect analysis. The main objective of the analyses will be to describe the direction and magnitude of the effects of the different school refusal interventions on the different outcome constructs. Additionally, the analysis will attempt to identify the characteristics of the study methods, interventions, and student samples that are associated with larger and smaller effects on the various outcome constructs. Based on prior theory and research, the following moderators will be examined for their influence on effect sizes: 1) treatment modality; 2) treatment duration; 3) theoretical basis of intervention (e.g., CBT, family systems, etc.); 4) grade level of sample; and 5) race or socioeconomic status of sample. Analysis will be conducted using Comprehensive Meta-Analysis 2.2 (CMA) when possible. Currently, CMA 2.2 only allows for meta-regression with continuous scaled variables. For meta-regression with categorical variables, we will use SPSS or STATA with appropriate macros.

Summary and descriptive statistics of the study-level contextual characteristics, methodological quality characteristics, and participant and intervention characteristics will be used to describe the included studies.

Sensitivity analysis will be conducted to examine the potentially biasing affects of outliers and studies not reporting or controlling for group differences. If necessary, additional sensitivity analysis will be conducted if other issues arise that may impede our confidence in the estimated pooled effect size estimates.

A test of homogeneity (Q -test) will be conducted to compare the observed variance to what would be expected from sampling error. The Q statistic is distributed as a chi-square with $k-1$ degrees of freedom (k = the number of effect sizes). The Q statistic is calculated by adding the squared deviations of each study's effect size from the mean effect size, weighting their contribution by its inverse variance. A significant Q rejects the null hypothesis, indicating that the variability of effect sizes between studies is greater than what would be expected by sampling error alone. The I^2 statistic will also be used to

describe the percentage of total variation across studies due to the heterogeneity rather than chance.

Publication bias will be assessed using the trim and fill procedure, and the resulting funnel plot produced in CMA will be visually inspected. Egger et al.'s Regression Test (1997) will also be used to assess the possibility of publication bias.

Treatment of Qualitative Research

Qualitative research will not be included in this review.

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DECLARATIONS OF INTEREST

There are no known conflicts of interest.

REVIEW TEAM

Lead reviewer:

Name:	Brandy R. Maynard, Ph.D., LMSW
Title:	Assistant Research Professor
Affiliation:	School of Social Work Saint Louis University
Address:	Tegeler Hall 3550 Lindell Boulevard
City, State, Province or County:	St. Louis, MO
Postal Code:	63103
Country:	USA
Phone:	512-232-2774
Mobile:	269-876-8903
Email:	bmaynar1@slu.edu

Co-author(s):

Name:	Kristie Brendel, Ph.D., LCSW
Title:	Assistant Professor
Affiliation:	Aurora University
Address:	347 S. Gladstone Avenue
City, State, Province or County:	Aurora, IL
Postal Code:	60506-4892
Country:	USA
Phone:	630-844-5436
Mobile:	630-673-0847
Email:	kbrendel@aurora.edu

Name:	Jeffrey J. Bulanda, Ph.D., LCSW
Title:	Assistant Professor

Affiliation:	Aurora University
Address:	347 S. Gladstone Avenue
City, State, Province or County:	Aurora, IL
Postal Code:	60506-4892
Country:	USA
Phone:	630-844-5291
Mobile:	773-550-1620
Email:	kbrendel@aurora.edu

Name:	Terri Pigott, Ph.D.
Title:	Professor
Affiliation:	Loyola University Chicago
Address:	820 N. Michigan Ave Lewis Towers 11th Floor
City, State, Province or County:	Chicago, IL
Postal Code:	60611
Country:	USA
Phone:	312-915-6245
Mobile:	
Email:	tpigott@luc.edu

REQUEST SUPPORT

No support is requested at this time.

ROLES AND RESPONSIBILITIES

Please give brief description of content and methodological expertise within the review team. The recommended optimal review team composition includes at least one person on the review team who has content expertise, at least one person who has methodological expertise and at least one person who has statistical expertise. It is also recommended to have one person with information retrieval expertise.

Who is responsible for the below areas? Please list their names:

- Content: Maynard, Brendel
- Systematic review methods: Maynard, Brendel
- Statistical analysis: Pigott, Maynard
- Information retrieval: Brendel, Bulanda

PRELIMINARY TIMEFRAME

It is anticipated that the review will be completed within 6 months following approval of the protocol.

PLANS FOR UPDATING THE REVIEW

The lead reviewer will be responsible for updating the review approximately every 3-5 years.

AUTHORS' RESPONSIBILITIES

By completing this form, you accept responsibility for preparing, maintaining and

updating the review in accordance with Campbell Collaboration policy. The Campbell Collaboration will provide as much support as possible to assist with the preparation of the review.

A draft review must be submitted to the relevant Coordinating Group within two years of protocol publication. If drafts are not submitted before the agreed deadlines, or if we are unable to contact you for an extended period, the relevant Coordinating Group has the right to de-register the title or transfer the title to alternative authors. The Coordinating Group also has the right to de-register or transfer the title if it does not meet the standards of the Coordinating Group and/or the Campbell Collaboration.

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I understand the commitment required to undertake a Campbell review, and agree to publish in the Campbell Library. Signed on behalf of the authors:

Form completed by: Brandy R. Maynard

Date: 29 November 2012

APPENDIX A: CHARACTERISTICS OF PRIOR REVIEWS

Author(s) and Pub. Year	Synthesis Method	Targeted Problem	Specify Search Strategy	Study Selection			Methods Included			# of Studies	Summary of Conclusions
				Inclusion of Gray Literature	Specific Intervention	How were decisions of relevance & validity made?	Experiment Only	Experiments and Quasi-Experiments	All		
Elliot 1999	Narrative-trad. lit review	School refusal	No	No	Behavioral, CBT, Family Th & Psychopharm	Not specified			x	8 cited	"What works" has been built up largely on the basis of clinical experience-substantial, scientifically sound, controlled studies of tx efficacy continue to be absent from the lit. Concluded that each treatment modality did not have enough evidence of effectiveness.
Fremont 2003	Narrative-trad. lit review	school refusal	No	No	Behavioral, ed.-supportive, parent-teacher, psychopharm	Not specified			X	4 studies cited	A range of empirically supported exposure-based treatment options are available; trad. Educational and supportive therapy has been show to be effective; medication has been mixed.
Heyne et al. 2001	Narrative-trad. lit review	school refusal	No	No	CBT and pharmacologic	Not specified			X	NS	The first line of treatment for school refusers should be CBT. There is little sound evidence from clinical studies of pharma tx for the effectiveness of the drugs commonly used, but recommended use of meds for school refusers displaying severe anxiety and depressive disorders.
Kearney 2001	Narrative	School refusal	No	No	Variety- based on functional assessment	Not specified			X	NS	Recommended treatment based on the four functional classifications of SRB.
Kearney 2008	Narrative-trad. lit review	school absenteeism and school refusal	No	No	Variety	Not specified			x	NS	Medical, clinical and systematic interventions have demonstrated effectiveness. Greater coordination and synthesis of research needed.

Author(s) and Pub. Year	Synthesis Method	Targeted Problem	Specify Search Strategy	Study Selection			Methods Included			# of Studies	Summary of Conclusions
				Inclusion of Gray Literature	Specific Intervention	How were decisions of relevance & validity made?	Experiment Only	Experiments and Quasi-Experiments	All		
Kearney & Bensaheb 2006	Narrative-trad. lit review	Absenteeism and school refusal	No	No	School-based health programs	Not specified			X	NS	School health professionals are often an essential component of successful treatment. Authors recommend strategies based on three categories of school refusers.
King et al. 1998	Narrative-trad. lit review	School refusal	No	No	Behavioral	Not specified			x	5 cited	Limited but encouraging support for the efficacy, clinical utility and acceptability of behavioral treatments for school refusal.
King et al. 2000	Narrative-review of outcome studies	School refusal	No	No	CBT and Behavioral	Not Specified			X	Cited 8	"At first glance, our review of research suggests empirical support for CB therapy in the tx of SR. " When they applied stringent criteria regarding evidentiary support for psychosocial interventions (outlined by the Task Force on Promotion and Dissemination of Psychological Procedures), "empirical support for the well-established status of CBT is found wanting" .
King & Bernstein, G.A. 2001	Narrative-trad. lit review	school refusal	No	No	CBT, psychopharm	Not specified			X	17	CBT findings were mixed- one showing clinically significant improvement in school attendance compared to wait-list control and one showing improvement, but no differences between CBT and educational support therapy. Pharmacotherapy showed conflicting results when treating anxiety-based school refusers.
King et al. 2005	Narrative-review of outcome studies	Anxiety and phobic disorders- subgroup of school refusal included	peer-reviewed journals did not specify	No	CBT and Behavioral	Not specified			X	Cited 7	"Overall, school refusal has responded to CBT programs as demonstrated by a number of controlled studies, with general maintenance of gains."

Author(s) and Pub. Year	Synthesis Method	Targeted Problem	Specify Search Strategy	Study Selection			Methods Included			# of Studies	Summary of Conclusions
				Inclusion of Gray Literature	Specific Intervention	How were decisions of relevance & validity made?	Experiment Only	Experiments and Quasi-Experiments	All		
		separately									
Lauchlin, 2003	Narrative-trad. lit review	Non-attendance (truancy and school refusal)	No	No	Systemic, individual, group	Not specified			X	4 studies cited	"In present climate, appears that the most appropriate and effective method in dealing with chronic non-attendance is to design an individualized program according to the pupil's particular needs, but involving a multi-systems approach."
Lee & Miltenberg 1996	Narrative-trad. lit review	school refusal	No	No	Prescriptive Tx based on functional assess.	Not specified			X	8 studies cited	Functional assessment and treatment have been successfully used for school refusal behavior.
Ollendick & King 1999	Narrative-trad. lit review	School refusal	No	No	CBT	Not Specified			X	Cited 6	CBT has been effective, but not for all. CBT may be more effective if used prescriptively and tailored to the individual child.
Trueman, 1984	Narrative review	School phobia	No	No	Behavioral treatment	Not specified			Single case only	19 single case studies	"A review of the literature concerning the behavioral treatment of school phobia has revealed that...case reports indicate that these treatment have been effective in the modification of school phobic behavior". P. 222.

* It was unclear if cited "studies" were original research, reviews or expert opinions, etc.

NS- not specified

APPENDIX B: CODING FORM

School Refusal Interventions Systematic Review and Meta-Analysis

Data Coding Form

Study ID: _____

Author: _____

Year: _____

Date of Coding: _____

Coder: _____

SECTION A: SOURCE DESCRIPTORS AND STUDY CONTEXT

A1. Type of report (SELECT ONE) [PUBTP]

- 1. Journal article
- 2. Book/book chapter
- 3. Gov't report, Federal, state, local
- 4. Conference proceedings
- 5. Thesis or Dissertation
- 6. Unpublished report (non-gov. tech report, convention paper, etc)
- 7. Other: specify _____

A2. Country in which study was conducted [CNTRY]

- 1. USA
- 2. UK
- 3. Canada
- 4. Australia
- 5. Other: _____
- 99. Cannot tell

A3. Location of program [TXLOC]

- 1. Urban area
- 2. Suburban area
- 3. Rural area
- 4. A mixture of areas
- 99. Not enough information to determin

A4. Routine practice vs. Research project [RSRCH]

- 1. Research Project: The intervention would not have been implemented without the interest/initiative of the researcher. The intervention is delivered by the research staff or by service providers

trained by the researcher.

- ❑ 2. **Demonstration Project:** May be implemented by researchers, but are quasi-real-world test of a promising program.
- ❑ 3. **Evaluation of “real-world” or routine program:** Service agency implemented a program using routine personnel and typical clients- there may be an outside researcher who conducts the evaluation, but the program was already in place before the research began.

**SECTION B:
SAMPLE DESCRIPTORS**

Description of Participants (Treatment and Comparison groups)

- B1. Mean age of participants [AGE]

- B2. Grade level of participants [GRD]
 1. Elementary School (K-5)
 2. Middle school (6-8)
 3. High school (9-12)
 4. Mixture of grade levels
 99. Not enough information to determine
- B3. Race/ethnicity- indicate predominant race/ethnicity [RACE]
 1. Caucasian: % _____
 2. African-American % _____
 3. Hispanic % _____
 4. Other racial minority: _____ %
 99. Not able to determine
- B4. Sex [SEX]
% Males _____ (use 999 if not enough information to determine)
- B5. Socio-economic status- free or reduced lunch [SES1]
% receiving free or reduced school lunch _____
Not able to determine- code as 999
- B6. Socio-economic status- Description [SES2]
Brief description of SES composition of the sample

- B7. Chronicity of absenteeism at baseline (% of days/year absent) [CHRON]
 1. Less than 5% days per year
 2. 5%-10% days per year
 3. 11%-15% days per year
 4. 15%-20% days per year
 5. 21%-30% days per year
 6. 31%-40% days per year
 7. 41%-50% days per year
 8. More than 50% days per year
 99. Not enough information to determine

SECTION C
TREATMENT/INTERVENTION DESCRIPTORS

Treatment Group- There may be more than one treatment group per study. Select the treatment group that receives the treatment that is specified by the authors as being the focal program/intervention under investigation or the one that is expected by authors to be most effective.

C1. What is the name of the intervention received by treatment group? [TXNAME]

C2. Describe the program/intervention
[TXDESC]

C3. What was the primary setting of the program? [TXSET]

- 1. School
- 2. Community-based organization
- 3. Clinic
- 4. Court
- 5. Student's home
- 6. Mixed
- 7. Other (specify) _____
- 99. Not enough information to determine

C4. Who provided the services? (SELECT ALL THAT APPLY) [SVPRO]

- 1. Master's or PhD clinician (Social Worker, Psychologist, Counselor (non-school))
- 2. School counselor
- 3. Teacher
- 4. Other school personnel
- 5. Other: _____
- 99. Not enough information to determine

C5. Role of the evaluator/author/research team or staff in the program. [AUTHRL]

- 1. Researcher delivered the treatment
- 2. Researcher involved in planning or designing the treatment
- 3. Researcher independent of treatment- research role only
- 99. Cannot tell

C6. Did the provider receive special training on the intervention? [PR-TRN]

- 1. Yes
- 2. No
- 99. Not enough information to determine

C7. Treatment Format: Check all that apply: [FRMT]

- 1. Student and provider (one-on-one)
- 2. Student group and provider
- 3. Parents only and provider
- 4. Groups of parents and provider
- 5. Groups of families and provider
- 6. Teachers/Treatment Professionals (no students)
- 7. Other
- 99. Not enough information to determine

C8. Focal Format- Use same numbering system above and select the ONE format type that is considered the focal format of the intervention. If there is no single format that can be identified as the focal format, code 88 for multiple format program.

[FFRMT]

C9. What are the components of this program? (SELECT ALL THAT APPLY)

[COMP]

- 1. Counseling/therapy- CBT
- 2. Counseling/therapy- non-CBT
- 3. Parenting skills
- 4. Skills training (life skills, social skills)
- 5. Mentoring
- 6. Attendance monitoring
- 7. Contingency management, incentives, reward system, etc.
- 8. Tutoring
- 9. Parent Contact- letters or phone calls to parents
- 10. School policy/structure
- 11. Case management/linking to other services
- 12. Extra-curricular activities
- 13. School social work interventions
- 14. Teacher training
- 15. Other: _____
- 99. Not enough information to determine

C10. Focal component- Use the same numbering system above to select

[FCOMP]

the ONE program type that can be considered the focal program characteristic. If you determine no one component could be identified as the focal, then code 88.

C11. Duration of treatment

[DUR]

- 1. One event
- 2. Ongoing- specify mean # of weeks participant received intervention

- 99. Not enough information to determine

C12. Frequency of contact between participants and provider

[FRQ]

- 1. Less than weekly
- 2. Weekly

- 3. Twice weekly
- 4. 3-4 times weekly
- 5. Daily
- 6. Other
- 99. Not enough information to determine

C13. Dosage of treatment: Mean number of total hours of contact between participants [DOSE]
 (child and parent if both involved) _____

C14. Did researchers monitor and measure fidelity? [MFID]
 1. Yes
 2. No
 99. Not enough information to determine

C15. Did the researchers present evidence that suggests that the program was [FIMP]
 Implemented with fidelity?
 1. Yes, presented strong fidelity to the model
 2. Somewhat- presented some problems with fidelity, but reasonably well implemented
 3. No, presented multiple problems with fidelity
 4. Authors did not measure/report fidelity

C16. How much did this program cost per student? [COST]
 \$ _____
 99. Not enough information to determine

Comparison Group Condition Description

C17. What did the control/comparison group receive? [CGTX]
 1. Nothing or wait list
 2. "Treatment as usual": Specify _____
 3. Placebo/Attention
 4. A specified treatment: Specify _____
 5. Other: _____

C18. Describe what happened to the control/comparison group [CGTXDESC]

SECTION D
RESEARCH METHODS AND QUALITY

- D1. Research design type [DES]
- 1. Experimental Design with Random assignment
 - 2. Quasi-experimental design- Regression Discontinuity or interrupted time series
 - 3. Quasi-experimental design- Comparison group, with Pre-test
 - 4. Quasi-experimental design- Comparison group, no Pre-test
- D2. Unit of assignment to conditions [ASSGN]
- 1. Individual student
 - 2. Group/Cluster: specify _____
 - 3. Other: _____
 - 99. Not enough information to determine
- D3. Method of assignment to condition(s) [UNIT]
- 1. Random after matching, stratification, blocking, etc.
 - 2. Random, simple
 - 3. Quasi-random- assigned by some naturally occurring process (next person through the door)
 - 4. Nonrandom- matched or statistically controlled on pretest measures and/or personal characteristics
 - 5. Nonrandom, not matched, but pretreatment equivalence info is available
 - 6. Other: _____
 - 99. Not enough information to determine
- D4. Was the data collector blind to the group assignment? [BLND]
- 1. Yes
 - 2. No
 - 99. Not enough information to determine this
- D5. If matching was used, how were groups matched? [MATCH]
- 1. Matched on pretest measure
 - 2. Matched on demographics
 - 3. Matched on both of the above
 - 4. Propensity Score Matching
 - 5. Other matching technique: _____
 - 99. Not enough information to determine
- D6. Was the equivalence of groups tested at pretest? [GPEQ]
- 1. Yes
 - 2. No
- D7. Results of statistical comparisons of pretest differences [STCOMP]
- 1. No comparisons made
 - 2. No statistically significant differences
 - 3. Significant differences judged unimportant by coder
 - 4. Significant differences judged of uncertain importance by coder
 - 5. Significant differences judged important by coder

D8. If groups were non-equivalent, were statistical controls used?

[NOEQCTR]

- 1. Yes
- 2. No

D9. Was there more than 20% attrition in either/both groups?

[ATT]

- 1. No
- 2. Yes- in treatment group only
- 3. Yes- in comparison group only
- 4. Yes- in both groups

SECTION E
EFFECT SIZE LEVEL CODING SHEET

Dependent Measures Descriptors- ATTENDANCE

- E1. Source of outcome data [DSOURCE]
- 1. Self report
 - 2. Parent report
 - 3. Teacher report
 - 4. Other person report: specify _____
 - 5. Official record (school, police, etc.)
 - 6. Other: _____
 - 99. Not enough information to determine
- E2. Type of measure [MEASTP]
- 1. Archival report/school record
 - 2. Rating scale, survey, checklist, questionnaire
 - 3. Behavioral observation
 - 4. Other: _____
 - 99. Not enough information to determine
- E3. Has the instrument that measured this construct demonstrated reliability and validity in this sample or similar samples OR use of public agency administrative data, behavioral or biological measures? [MEASREL]
- 1. Yes
 - 2. No
 - 99. Not enough information to determine
- E4. Were follow-up data collected on this measure? [FWUP]
- 1. Yes
 - 2. No
- E5. Length of follow-up? [LENGTH]
of months : _____
- E6. Did the authors provide any information about the statistical significance of the difference between the two groups on this dependent variable? [STSIG]
- 1. Significant result, ES data below
 - 2. Non-significant result, ES data below
 - 3. Significance not reported
 - 4. Significant result, no ES data
 - 5. Non-significant result, no ES data
 - 6. Significance not reported, no ES data
- E7. Intent-to-Treat Analysis- Are results for this effect size based on an intent-to-treat analysis? [ITT]
- 1. Intent-to-treat analysis (all assigned participants are used in posttest)

- 2. Modified intent-to-treat analysis (not all assigned participants are used in post-test, but authors have done some modifications to approximate a true ITT)
- 3. Completer analysis (only those participants who completed treatment or who stayed in the study are used in posttest)

Effect Size Data- (Continuous Outcome Variable)

- E8. Assigned N for treatment group _____ [ASSNTX]
- E9. Assigned N for comparison group _____ [ASSNCG]
- E10. Observed N for treatment group _____ [OBNTX]
- E11. Observed N for comparison group: _____ [OBNCG]

Effect Size Data (Continuous Outcomes)

- E12. Treatment group mean: _____ [TXM]
- E13. Comparison group mean: _____ [CGM]
- E14. Are the above means adjusted? [ADJM]
- 1. Yes (explain) _____
 - 2. No
- E15. Treatment group standard deviation _____ [TXSD]
- E16. Comparison group standard deviation _____ [CGSD]
- E17. *t*-value from an independent *t*-test or square root of *F*-value from a one-way analysis of variance (*df*1) _____ [ES-T]

Effect Size

- E18. Calculated effect size _____ [ES]
- E19. Calculated standard error of the effect size _____ [ESSE]

Dependent Measures Descriptors- ANXIETY

- E20. Source of outcome data [DSOURCE]
- 1. Self report
 - 2. Parent report
 - 3. Teacher report
 - 4. Other person report: specify _____
 - 5. Official record (school, police, etc.)
 - 6. Other: _____

99. Not enough information to determine

E21. Type of measure [MEASTP]

- 1. Archival report/school record
- 2. Rating scale, survey, checklist, questionnaire
- 3. Behavioral observation
- 4. Other: _____
- 99. Not enough information to determine

E22. Has the instrument that measured this construct demonstrated reliability and validity in this sample or similar samples OR use of public agency administrative data, behavioral or biological measures?

[MEASREL]

- 1. Yes
- 2. No
- 99. Not enough information to determine

E23. Were follow-up data collected on this measure? [FWUP]

- 1. Yes
- 2. No

E24. Length of follow-up? [LENGTH]

of months : _____

E25. Did the authors provide any information about the statistical significance of the difference between the two groups on this dependent variable?

- 1. Significant result, ES data below
- 2. Non-significant result, ES data below
- 3. Significance not reported
- 4. Significant result, no ES data
- 5. Non-significant result, no ES data
- 6. Significance not reported, no ES data

E26. Intent-to-Treat Analysis- Are results for this effect size based on an intent-to-treat analysis?

- 1. Intent-to-treat analysis (all assigned participants are used in posttest)
- 2. Modified intent-to-treat analysis (not all assigned participants are used in post-test, but authors have done some modifications to approximate a true ITT)
- 3. Completer analysis (only those participants who completed treatment or who stayed in the study are used in posttest)

Effect Size Data- (Continuous Outcome Variable)

E27. Assigned N for treatment group _____ [ASSNTX]

E28. Assigned N for comparison group _____ [ASSNCOMP]

E29. Observed N for treatment group _____ [OBNTX]

E30. Observed N for comparison group: _____ [OBNCOMP]

Effect Size Data (Continuous Outcomes)

E31. Treatment group mean: _____ [ESTXM]

E32. Comparison group mean: _____ [ESCGM]

E33. Are the above means adjusted? [ESADJM]

- 1. Yes (explain) _____
- 2. No

E34. Treatment group standard deviation _____ [ESTXSD]

E35. Comparison group standard deviation _____ [ESCGSD]

E36. *t*-value from an independent *t*-test or square root of *F*-value from a one-way analysis of variance (*df*1) _____ [ES-T]

Effect Size

E37. Calculated effect size _____ [ES]

E38. Calculated standard error of the effect size _____ [ESSE]

Decision Rule/Notes

E39. Should this study be retained for the meta-analysis? [DEC]

- 1. Retain for review
- 2. Do NOT retain for review
- 3. Unsure- more information needed

Reason(s) study not to be included in the review: