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Solution-focused brief therapy in schools: A review of the outcome literature

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ABSTRACT

The application of solution-focused brief therapy (SFBT) with students and in school settings has grown over the past 10 years and has been applied to a number of behavioral and academic problems. This review of the research literature examined the most rigorous outcome studies on SFBT conducted in schools, given its promise within this specific setting and population. In addition, effect size estimates were calculated to further examine the effectiveness, thereby providing more quantitative information for each study. This review found mixed results but SFBT did show promise as a useful approach in working with at-risk students in a school setting, specifically helping students reduce the intensity of their negative feelings, manage their conduct problems, and externalizing behavioral problems.

1. Introduction

Solution-focused brief therapy (SFBT) is a strengths-based intervention that is founded in the belief that it is important to build on the resources and motivation of clients because they know their problems the best and are capable of generating solutions to solve their own problems (Miller & de Shazer, 2000). Originating in the early 1980s at the Brief Family Therapy Center (BFTC) in Milwaukee, solution-focused brief therapy was developed inductively by two social workers, Steve de Shazer (1985, 1988) and Insoo Kim Berg (1994), and colleagues (Berg & De Jong, 1996; Berg & Miller, 1992; Cade & O'Hanlon, 1993; Lipchik, 2002; Murphy, 1996) who wanted to study effective and brief therapeutic techniques for helping clients change. Solution-focused brief therapy uses carefully posed questions that purposefully use communication tools from communication science that change perceptions through co-constructive language, combined with collaborative goal setting, and the use of solution-building techniques that occur between therapist and client (Bavelas, Coates & Johnson, 2000, 2002; Bavelas, McGee, Phillips, & Routledge, 2000; McGee, Del Vento, & Bavelas, 2005). These carefully constructed communication processes are believed to be key components to helping client's change. Solutions emerge in perceptions and interactions between people and problems are not to be solved solely by the therapist but rather solutions are co-constructed with the client(s) (Berg & De Jong, 1996).

1.1. SFBT core techniques

Recently, the Research Committee of the Solution-Focused Brief Therapy Association developed a treatment manual in order to help standardize the implementation of SFBT by practitioners and increase treatment fidelity of the model. The committee identified three general ingredients of SFBT: (1) use of conversations centered on clients' concerns; (2) conversations focused on co-constructing new meanings around client concerns; (3) use of specific techniques to help clients co-construct a vision of a preferred future and drawing upon past success and strengths to help resolve issues (SFBTA Research Committee, 2007). Previous articles by de Shazer and Berg (1997) and Gingerich and Eisengart's (2000) systematic qualitative review also further categorized SFBT by the following techniques and core components:

1. The therapist uses the miracle question;
2. Use of scaling questions;
3. A consulting break and giving the client a set of compliments;
4. Assigning homework tasks;
5. Looking for strengths or solutions;
6. Goal-setting;
7. Looking for exceptions to the problem.

Currently, these core components remain important techniques for change in SFBT and are an integral part of doing SFBT as identified by the main developers of the model and the Research Committee of the SFBT Association. For a more detailed explanation of these specific SFBT components and techniques, please see De Jong and Berg, 2008; Berg and Steiner, 2003; de Shazer, Dolan, Korman, and Trepper, 2007; Nelson and Thomas, 2007; Selekman, 2002. Since its development in the early 1980s these core components of SFBT have been applied to a wide range of problems involving children and youth including crisis

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oriented youth services, mental health problems, substance abuse, and school-related behavior problems (Franklin, Biever, Moore, Clemons, & Scamardo, 2001; Hopson & Kim, 2005).

2. SFBT in school settings

The practice of SFBT with children in school settings has grown over the past 10 years and continues to be of interest to researchers and school-based professionals such as school social workers, counselors, and psychologists (Kelly, Kim, & Franklin, 2008; Metcalf, 2008). SFBT has been applied in school settings to a number of problems including student behavioral and emotional issues, academic problems, social skills, and dropout prevention (Berg & Shilts, 2004; Franklin et al., 2001; Franklin & Hopson, 2008; Franklin, Streeter, Kim, & Tripodi, 2007; Kral, 1995; Metcalf, 1995; Murphy, 1996; Murphy & Duncan, 2007; Sklare, 1997; Webb, 1999). The brief nature of SFBT and its flexibility in working with diverse problems suggest this approach is a practical intervention that can be easily applied and sustained in a school setting (Franklin et al., 2001; Franklin & Gerlach, 2007; Kelly et al., 2008; Newsome, 2004).

The application of SFBT in school settings, in some ways, is an apposite fit. Similar to therapists that serve clients in social agencies, for example, school-based professionals are inundated with large caseloads and time restrictions to serve all the students that need help. In these situations, SFBT may be useful for school-based professionals because SFBT is usually a brief intervention that tries to engage and focus on quick change with children, families and teachers. Furthermore, many school-based professionals deliver their services to students who have yearly goals for treatment, usually through an Individualized Education Plan (IEP). SFBT is well-suited to helping school-based professionals write those goals and collaborate with their students to meet those goals successfully. By identifying discrete changes, school-based professionals can easily integrate SFBT-thinking into their IEP goals (Kelly et al., 2008). Franklin and Gerlach (2007) summarize other reasons why SFBT may be gaining popularity in public school settings. For example, public schools frequently serve high-risk populations such as homeless teens, immigrants, and teen parents. Many children referred for therapy in the school may also be considered mandated or involuntary clients and SFBT is a therapy that was developed for the purposes of being effective with involuntary client populations (Franklin & Hopson, 2008).

3. Purpose of the current study

Despite the increase in social workers and counselors using SFBT in schools, no review of research studies has been conducted examining its effectiveness for this particular setting. The closest study that examined such results was Kim's (2008) recent meta-analysis on solution-focused brief therapy that examined the overall effectiveness of this therapy model. In this analysis, Kim's results noted that some of the medium effect sizes found in more recent SFBT studies with children were in schools settings (Franklin, Moore, & Hopson, 2008; Franklin et al., 2007; Springer, Lynch, & Rubin, 2000). This study will expand upon the initial findings from Kim's (2008) meta-analysis study by reviewing the literature on outcome studies conducted on SFBT in school settings. The aim of this present article is to review and examine the most rigorous outcome studies on SFBT conducted in schools, given its promise within this specific setting and population. In addition to reviewing the research literature, effect size estimates will be calculated to further examine the effectiveness, thereby providing more quantitative information for each study. Given the scarceness of empirically supported interventions targeting both academic and mental health problems in school settings (Hoagwood & Erwin, 1997; Hoagwood et al., 2007; Roans & Hoagwood, 2000), the examination of SFBT as a potentially effective intervention for children in schools warrants further consideration and examination.

4. Method

For this review, published studies on SFBT in schools were identified through literature searches in various electronic databases (PsycINFO, Expanded Academic Search Premier, Social Services Abstract, and ERIC) using the keywords, "solution-focused brief therapy" and crossed referenced with "schools." Outcome studies on solution-focused brief therapy have only been around since 1988 with most early studies using non-experimental designs with self-reported measures. Therefore, a time frame from 1988 to August 2007 was used in the literature search. Studies needed to be conducted in the United States and studies that were in press were also included in this review.

To be included in the review, only primary studies using experimental designs that examined the effectiveness of SFBT conducted in either a school setting or with students were reviewed. For this study, SFBT will be operationalized based on the criteria set by de Shazer and Berg's (1997) article, Gingerich and Eisengart's (2000) systematic qualitative review, and the recent treatment manual as stated in the previous section. It was determined that at least one of these core components listed earlier must be utilized in order for a study to be considered SFBT and the authors of the primary studies must have identified the intervention as solution-focused. This decision was based on the Gingerich and Eisengart's (2000) article, which used this similar selection criterion. Additionally, if a study did not contain at least one of these core components, then it was excluded from this review.

When the studies did not report effect sizes (d), the authors of this review calculated effect sizes when enough statistical information was provided. The authors used Morris and DeShon's (2002) recommended effect size sample estimator formulas for independent-groups pretest–posttest design and then used Hedges' unbiased correction estimate (see Hedges & Olkin, 1985 for formulas) to correct for upward bias in effect size estimates. When a study reported no significant differences between experimental and control groups, then effect sizes were not calculated by the authors.

5. Results

Results from the literature search initially identified 14 studies with only seven meeting the criteria to be included in this review. Of the studies included in this outcome review, one study employed an experimental design, six were quasi-experimental designs, and one used a single-case design. A review of Table 1 shows all the studies included and their results. As can be seen in Table 1, sample size ranged from 7 to 86 students with four studies (Franklin, Biever et al., 2001; Franklin, Moore et al., 2008; Froeschle, Smith, & Ricard, 2007; Newsome, 2004) conducted with middle school age students, one study (Springer et al., 2000) with elementary school age students, one study (Franklin et al., 2007) with high school age students, and one study (Corcoran, 2006) crossing all three school age levels.

Below is a summary of the outcome studies on SFBT in schools and their effect size estimates calculated by the authors when not reported in the original study. Results are organized and summarized in relation to targeted outcomes, which focused on: self-esteem; student behavior; and academic outcomes. Both self-esteem and academic outcomes had three studies that examined these problems while student behavior had four studies that examined this outcome. The study by Froeschle et al. (2007) had all three outcome categories measured while Franklin et al. (2008) had two of the three outcome categories measured. Below is a summary of each study grouped by targeted outcomes.

Table 1
SFBT studies in schools

Study	Design	Sample size	Sample population	Outcome measure	Reported results summary	Effect size
Springer et al. (2000)	Quasi-experimental	10	Hispanic elementary students	Hare Self-Esteem Scale	Statistically significant increase on the Hare Self-Esteem Scale for SFBT group but comparison group's scores remained the same from pretest to posttest. However, no significant differences were found between the two groups at the end of the study on the self-esteem scale.	HSES=.57
Franklin et al. (2001)	Single case	7	Middle school students	Conners' Teacher Rating Scale	Five of seven (71%) students improved based on teacher's report.	N/A
Newsome (2004)	Quasi-experimental	52	Middle school students	Grades; Attendance	Statistically significant results with SFBT group increasing mean grade scores while the comparison group's grades decreased. No difference on attendance measure.	Grades=.43 Attendance=N/I
Corcoran (2006)	Quasi-experimental	86	Students aged 5–17	Conners' Parent Rating Scale; Feelings, Attitudes, and Behaviors Scale for Children	While both the experimental and comparison groups improved at posttest, no significant differences were found between groups on both measures.	CPRS=.08 FABSC=.48
Franklin et al. (2007)	Quasi-experimental	85	At-risk high school students	Credit Earned; Attendance	SFBT sample had statistically significant higher average proportion of credits earned to credits attempted than the comparison sample. Both groups decreased in the attendance mean per semester, however, the comparison group showed a higher proportion of school days attended to school days for the semester. Graduation rates also favored comparison group (90% to 62%).	Credits=.47 Attendance=−1.63 Graduation Rate=N/I
Froeschle et al. (2007)	Experimental design	65	8th grade females	American Drug and Alcohol Survey; Substance Abuse Subtle Screening Inventory Adolescent-2; Knowledge exam on physical symptoms of drug use; Piers-Harris Children's Self-Concept Scale-2; Home & and Community Social Behavior Scales; School Social Behavior Scales 2nd ed; Referrals; Grade Point Average	Statistically significant differences were found favoring SFBT group on drug use, attitudes towards drugs, knowledge of physical symptoms of drug use, and competent behavior scores as observed by both parents and teachers. No group differences were found on self-esteem, negative behaviors as measured by office referrals, and grade point averages.	ADAS=.65 SASSI-A2=.76 Knowledge=1.76 PHCSCS-2=.17 HCSBS=.63 SSBS-2=1.16 Referrals=.38 GPA=.35
Franklin et al. (2008)	Quasi-experimental	59	Middle school students	Child Behavior Checklist (CBCL)-Youth Self Report Form-Internalizing and CBCL Externalizing; Teacher's Report Form-Internalizing and Externalizing Score	SFBT group declined below clinical level by posttest and remained there at follow-up while comparison group changed little for Internalizing and Externalizing scores for Teacher Report Form as well as Externalizing score for Youth Self Report Form. No difference between the groups on Youth Self Report Form- Internalizing score.	TRF-Internal=1.40 TRF-External=.61 YRF-Internal=.08 YRF-External=.86

Note: N/A = not applicable; N/I = not enough information to calculate effect sizes.

5.1. Self-esteem outcome

Springer et al. (2000) used a pretest–posttest non-equivalent comparison design with children whose parents or other family members have been incarcerated. Ten elementary students participated in the groups with five in the experimental group and five in the comparison group (wait list). The experimental group leader used specific solution-focused brief therapy techniques such as scaling questions and the miracle question to help facilitate the six-session group. Mutual aid and interactional approaches were also used by the experimental group leader to view group process and development.

Results from the study were mixed. Students in the experimental group make significant pre-post improvements on the Hare Self-Esteem Scale, whereas the comparison group's scores were unchanged. A medium effect size (d=.57) was reported in the article; however, the small sample size suggests cautious interpretation of this effect size. Despite the medium effect size, a covariance analysis of posttest scores found no significant differences between the experimental and comparison groups on the Hare Self-Esteem Scale at the end of a six-week student support group.

Froeschle et al. (2007) conducted a randomized experimental design study utilizing SFBT group sessions, mentorship, and action learning techniques to examine the program's effectiveness on adolescent girls' knowledge, attitudes, and use of drugs, as well as their self-esteem and academic success. The authors measured self-esteem with both groups using the Piers-Harris Children's Self-Concept Scale Version 2 (PHCSCS-2). The sample consisted of 80 eighth grade girls from an urban middle school who were randomly selected into the experimental and control groups with 65 students completing the study. Along with community and peer mentors conducting 16 guidance lessons, a school counselor conducted weekly one-hour SFBT group sessions with the girls for 16 weeks. The SFBT group sessions were based on Metcalf's (1995) group model and only involved the students randomly selected into the experimental group. Metcalf's group approach adheres to the SFBT treatment process and used core techniques of SFBT described earlier. The control group was wait-listed and received the program after the completion of the study. Results for the self-esteem outcome showed no group differences at posttest based on the PHCSCS-2 measure. While no effect sizes were reported by Froeschle et al. (2007), the current authors were able to calculate a small, positive effect size (d=.17) for self-esteem based on the data available from the article.

Franklin et al. (2008) conducted a quasi-experimental design study with two middle schools in a suburban area near San Antonio, Texas to improve student internalizing and externalizing behaviors. Thirty students were in the experimental group and twenty-nine were in the comparison group and outcomes were measured at pretest, posttest, and follow-up. Students received five to seven sessions of SFBT. The SFBT sessions followed a treatment protocol that made use of the exception questions, miracle question, and scaling questions in every session. Sessions were also filmed and reviewed for fidelity checks. Additionally, teachers received a four-hour teacher training on SFBT

and three to four consultations or collaborative meetings to help resolve difficulties with their students. Those meetings use the collaborative meeting process and specific questions and forms developed by Metcalf (1995). To measure the student's internalizing and externalizing behaviors, both the Teachers Report and Youth Self-Report Forms of the Achenbach Child Behavioral Checklist were used.

Results of the Internalizing score for the Teachers Report Form showed the experimental group declined below the clinical level by posttest and remained there at follow-up. The comparison group, on the other hand, changed little between pre, post, and follow-up. A large effect size (d = 1.40) was reported for the Internalizing score for the Teacher Report Form. Results of the Internalizing score for the Youth Self-Report showed no difference between the experimental and comparison groups and a small effect size (d = .08) was reported in the study.

5.2. Student behavior outcome

Franklin et al. (2001) conducted an AB single case design study with seven children who were referred with learning disabilities and behavioral problems. The middle school students received 5–10 sessions of SFBT for 30–45 min per session and outcomes were measured using the Conners' Teacher Rating Scale to examine behavioral changes in students as reported by their teachers. Therapists also spoke with teachers about the progress of the cases and provided teacher consultations for the cases. The SFBT sessions with children followed a treatment protocol that made use of the exception questions, miracle question, and scaling questions in every session. Additionally, consultations were conducted with teachers using the collaborative meeting process and specific questions and forms developed by Metcalf (1995). The teacher consultations lasted 10 to 20 min a week for most cases. However, some teachers were provided more consultations than others contingent on the teacher's investment in participating and the needs of the case. The researchers observed the participants twice per week during the four-week baseline phase (6–8 observations), and once a week for the duration of therapy (5–10 observations).

Data analysis was conducted using visual analysis of observed changes on clinical cutting scores. For the CTRS-39, the clinical range is 70 and above. Cases with subscales averaging 69 or higher with 50% or more of the observations greater than 70 in the baseline phase were analyzed to see if the data would support clinical success. Clinical success was determined by scores subsequently moving into the non-significant clinical range (below 70) during the intervention phase. Follow-up scores were used to assess whether clinically significant improvements were maintained for one month following termination.

Results showed that five of the seven participants showed improvement on previous clinically significant subscales of the Conners' Teachers Rating Scale. It is interesting to note which subscales reflected the positive change. In this study hyperactivity, conduct problems, emotional indulgence, and asocial behavior were outcomes that teachers frequently rated as moving out of the clinical range on the Conner's measure. Individual positive outcomes were supported by movement out of clinical range and the magnitude of change achieved based the subscale scores that changed for each case (Franklin et al., 2001). This study showed several strengths including the use of standardized measures and good monitoring of its treatment fidelity, but the AB research design used lacks internal validity for examining the effects of SFBT. Replications of findings through multiple cases, however, provide some strength to the promising outcomes.

A quasi-experimental study by Corcoran (2006) examined the effectiveness of solution-focused brief therapy on child behavior problems such as aggression, conduct problems in schools, and impulsivity. A total of 86 students ages 5–17 received either a solution-focused brief therapy intervention or treatment as usual which consisted of a family treatment program incorporating many cognitive–behavioral techniques. Participants were assessed on the Conners' Parent Rating Scale and the Feelings, Attitudes, and Behaviors Scale for Children. The SFBT intervention was administered by 20 second-year Masters field student interns who were trained by the author through videotape demonstrations by Insoo Kim Berg, lectures, discussions, and role-play. Students and their families received between four and six SFBT sessions at a School of Social Work sponsored mental health clinic.

The statistical test comparing group differences on the outcome measures found no significant differences between groups with both improving at posttest. Corcoran (2006) notes, however, that this lack of difference in outcome might be expected since the treatment as usual incorporated many cognitive-behavior therapy components, which have been empirically supported. One could look at this as SFBT not being any better, but not any worse than the treatment students usually receive which is based on cognitive behavioral therapy. Additionally, while both groups had high attrition rates, SFBT had better treatment engagement and fewer dropouts than the treatment as usual group (Corcoran, 2006).

Froeschle et al.'s (2007) randomized experimental design study examined SFBT group sessions, mentorship, and action learning techniques to reduce substance use and behavioral problems among adolescent girls. In order to measure substance use and other behavioral outcomes, students were given the following measures: American Drug and Alcohol Survey (ADAS), Substance Abuse Subtle Screening Inventory Adolescent Version 2 (SASSI-A2), knowledge exam on physical symptoms of drug use (Knowledge), Home and Community Social behavior Scale (HCSBS), School Social behavior Scales Second Edition (SSBS-2). In addition, the study collected school data on number of office referrals (Referrals) for negative behaviors. Results from the univariate statistics found statistically significant differences on drug use, attitudes towards drugs, knowledge of physical symptoms of drug use, and competent behavior scores (parent and teacher reported) favoring the SFBT group. We calculated large effect sizes for two of the dependent variables, SSBS-2 (d = 1.16) and Knowledge (d = 1.76). The other statistically significant dependent variables had medium effect sizes: ADAS (d = .65); SASSI-A2 (d = .76); and HCSBS (d = .63). While no group differences were found on negative behaviors as measured by office referrals (Referrals), a small effect size was calculated (d = .38).

Franklin et al.'s (2008) quasi-experimental design study with two middle schools in a suburban area near San Antonio, Texas also aimed to improve student externalizing behavior problems. The 59 students were measured using the Teachers Report and Youth Self-Report Forms of the Achenbach Child Behavioral Checklist for externalizing problem behaviors. Results of the Externalizing score for the Teachers Report Form showed that the experimental group declined below the clinical level by posttest and remained there at follow-up. The comparison group, on the other hand, changed little between pre, post, and follow-up. A medium effect size (d = .61) was reported in the article for the Externalizing score. Results of the Externalizing score for the Youth Self-Report showed that the experimental group dropped below the clinical level and continued to drop at follow-up with a large effect size (d = .86) reported for the Externalizing score.

5.3. Academic outcome

Newsome (2004) studied the effectiveness of SFBT on grades and attendance for middle school students identified as at-risk with academic and attendance problems. Fifty-two students participated in this pretest–posttest comparison group design study with 26 students receiving the SFBT intervention and 26 students not receiving the intervention. The experimental group met for one class period (35 min) for 8 weeks during which the group facilitator used various SFBT techniques such as scaling questions, miracle question, goals, and

homework tasks. Measures for this study consisted of grade point averages and student attendance.

Grades for students in the experimental group increased from a mean pretest score of 1.58 to a mean posttest score of 1.69 while grades for the comparison group decreased from a mean pretest score of 1.66 to a posttest score of 1.48. The results of the regression testing differences between experimental and comparison groups on posttest grade point average scores were statistically significant when using pre-grade point average as the covariate, however the proportion of variance (R^2) was not large. A medium effect size (d=.43) was calculated by the authors for Newsome's (2004) study. As for the other dependant variable, attendance, there was no statistical difference between the experimental and comparison groups (Newsome, 2004).

Franklin et al. (2007) conducted a quasi-experimental design study with two high schools to examine if solution-focused brief therapy could help improve credits earned, attendance measures, and graduation rates. The experimental group (SFBT students) consisted of 46 students while the comparison group consisted of 39 students. Analysis using repeated measures ANOVA found that over time there was change in the number of credits earned as a proportion of credits attempted for both the experimental and the comparison group. While both groups increased their proportion of credits earned, independent samples t-tests showed the experimental group had statistically significant higher average proportion of credits earned to credits attempted than the comparison group. A medium effect size (d=.47) was reported in the article for credits earned. A repeated measures ANOVA was also conducted to examine differences between groups on the attendance variable, which found a difference that favored the comparison group. Independent samples t-test also showed that differences between the two groups on attendance were statistically significant and favored the comparison group. While both groups showed a decrease in the attendance mean per semester, the comparison group showed a higher proportion of school days attended to school days for the semester, with a large effect size reported (d=−1.63) favoring the comparison group. That is, the students at the comparison school did better than the students who received SFBT in terms of attending classes. Franklin et al. (2007) suggested, however, that the attendance between groups may not be a fair comparison because the SFBT group worked on a self-paced curriculum and could decrease their attendance when completed.

Franklin et al. (2007) also looked at all students in the sample who were classified as being in the 12th grade in the spring semester of 2004 to assess graduation rates for the 2003–2004 academic year. The school district's database identified 37 from the experimental group and 30 from the comparison group who were in the 12th grade in the spring semester of 2004. Of the 37 students from the experimental group, 23 (62%) graduated in the 2003–2004 academic year, while 27 (90%) graduated from the comparison group.

Upon further examination of the 14 students in the experimental group that did not graduate, however, nine of these students were still enrolled in the high school that following fall. Moreover, seven of these nine students eventually graduated by the end of the 2004–2005 school year which brings the total number of graduated students in the experimental group to 30 (81%). Furthermore, of the remaining five students not enrolled in the high school, three were attending another alternative school and one was attending a traditional public high school (Franklin et al., 2007).

Froeschle et al.'s (2007) experimental study also examined the effects of SFBT group sessions, mentorship, and action learning techniques on grade point averages among adolescent girls. Eighty 8th grade girls from an urban middle school were randomly selected into the experimental and control groups with 65 students completing the study. Univariate analysis (ANCOVAs) was used to examine grade point averages for the SFBT group and a waitlist control group. Results showed no group differences were found on academic grade point averages outcome.

5.4. Summary of outcomes

Overall, the studies reviewed in this systematic review found mixed results regarding the outcome measures examined in the individual studies. Positive outcomes suggested that solution-focused therapy can be beneficial in helping students reduce the intensity of their negative feelings, manage their conduct problems, improve academic outcomes like credits earned, and positively impact externalizing behavioral problems and substance use (Franklin, Biever et al., 2001; Franklin, Moore et al., 2008; Franklin, Streeter et al., 2007; Froeschle et al., 2007; Newsome, 2004). In one study it was also found that SFBT had equivalent results for impacting behavioral change as cognitive–behavioral therapy and had better outcomes for engaging clients and retaining them in the therapy process (Corcoran, 2006). Effect sizes calculated by the authors in the individual studies and also for this systematic review study showed that SFBT had medium and some large effect sizes.

On the other hand negative outcomes suggested that SFBT was not successful in raising GPA or improving attendance rates of students. Froeschle et al. (2007) found no difference in GPA between groups and it doesn't appear that SFBT is effective with school attendance as evidenced by the results of two studies (Franklin et al., 2007; Newsome, 2004). It should be noted that though more than one study has shown positive behavioral change on standardized measures such as the Achenbach Child Behavior Checklist and Conners' Teacher Rating Scale, one study (Froeschle et al., 2007) suggested that SFBT made no impact on behavior change as measured by negative behavioral referrals to the office. SFBT was also not successful at impacting the self-esteem of students as was evidenced by two studies (Froeschle et al., 2007; Springer et al., 2000).

6. Discussion

Mixed results and quality of the study designs preclude us from drawing definitive conclusions about whether SFBT as an effective intervention for certain outcomes with children and adolescents in school settings. The positive outcomes achieved in several studies examining externalizing problem behaviors, however, suggest that solution-focused brief therapy may be a useful approach for behavioral problems with at-risk students when applied in schools (Franklin et al., 2008; Franklin et al., 2001; Froeschle et al., 2007). The Franklin et al. (2008) study, for example, showed that SFBT improved the outcomes of children in a school setting that were having classroom and behavioral problems that could not be resolved by teachers, principals, or school counselors. After receiving the SFBT intervention, teachers and students reported on standardized measures (The Child Behavior Checklist and Youth Self-report Form) that the children's behavior problems significantly improved. Both teachers' and children's ratings improved and effect sizes were found to be in the medium to large range for the changes achieved.

The positive findings for behavioral outcomes may have considerable clinical significance for school-based practitioners because of the size of the effect sizes achieved coupled with the fact that most of the studies involved salient issues for school practitioners (e.g. conduct problems, hyperactivity, substance use). In two other studies SFBT demonstrated school outcomes such as credits earned (Franklin et al., 2007) better grades (Newsome, 2004) and this also may be especially relevant to the school practice setting (Hoagwood et. al., 2007). Another advantage of SFBT for school-based practice is that it can be effective in helping to create change in the target problem quickly, as well as helping to identify specific goals collaborated on by both the client and therapist. This review indicates that SFBT may have significant positive impact on behavior using a brief therapy approach. The majority of studies examined in this review, for example, revealed that about four to eight sessions of SFBT were delivered to achieve favorable outcomes. Only two studies (Franklin et al., 2001; Froeschle et al., 2007) suggested that more than eight student sessions were delivered. Brief interventions suggest

the clinical utility of SFBT for school settings that often require brief, practical responses for changing student behavior and academic problems (Franklin & Gerlach, 2007).

Negative and mixed findings are equally important to consider when deciding if SFBT is effective or not. Or in this case when deciding if SFBT has enough evidence to be considered as a relevant intervention for schools. The negative findings concerning attendance found in two studies (Newsome, 2004; Franklin et. al., 2007) is particularly important for school practitioners and deserves further explanation because the study designs and the measures used in these two studies may have confounded the results and therefore might be responsible for the non-significant findings. For example, Newsome's (2004) article found no difference between groups on attendance, but cites sample issues as a possible explanation for the non-significant results. Newsome states that while the students in the SFBT group had attendance problems the prior school year, these same students were actually attending school regularly during the academic year of the study. Therefore, school absences were not a problem with the SFBT sample prior to and at any point during the research study like they were the previous year when they were selected to participate but had not received the intervention yet. The lack of difference in absences between the SFBT and comparison group is not surprising since both groups were attending regularly.

Similarly, Franklin et al. (2007) looked at attendance with at-risk high school students and found the comparison group did better in terms of school days attended for the semester. The results may be misleading due to the unique curriculum design of the high school where the SFBT students attended. In a regular high school, such as the comparison school, students can be seriously penalized academically for not attending class. The students receiving SFBT attended a school that uses a self-paced content mastery curriculum, where students can work at their own pace. This means that students who understand the course material well can complete their course requirements faster and finish before the school semester is officially over. These students who received SFBT could have finished their course work before the traditional semester was over and therefore would not need to attend classes anymore. The school district, however, counts the missed days in their database regardless, and considers these students absent. Therefore, the relationship between attendance and performance could possibly be mitigated by the nature of the curriculum. A follow-up statistical analysis correlating attendance and credits earned also supported this conclusion by showing that there was no relationship between attendance and credits earned in the solution-focused school group (Franklin et al., 2007).

What we can conclude from these two studies is that because of the flaws in the research designs and measures that more research needs to be completed before we know if SFBT is an effective intervention with attendance. Therefore a practitioner should not necessarily discount SFBT for attendance problems but at the same time no favorable evidence at present exists that supports using the approach either. This waits further study.

The relevance and importance of outcomes measures used in the studies also have to be considered when examining those studies that found non-significant results on self-esteem. Springer et al. (2000) and Froeschle et al. (2007) found no difference between groups at posttest on the self-esteem measures in their studies. However, recently there is concern about the generalizability of using self-esteem as a dependent variable. It is not unusual for studies to provide interventions that try to improve self-esteem in adolescents with the hopes that this will lead to better school performance and behaviors. However recently research on the validity of using self-esteem as a measure for behavioral and academic improvements has been raised. Baumeister, Campbell, Krueger, and Vohs (2003) found that high self-esteem does not lead to improved school performance and may actually increase risky behaviors, such as smoking, drug use, and early sexual activity, in adolescents. They found little to no support for boosting self-esteem in an effort to improve academic and behavioral outcomes in adolescents. Hence, the use of SFBT to help increase self-esteem may not be an appropriate outcome for this intervention if the ultimate goal is to reduce risky behaviors and increase academic success. Self-esteem may not be the best measure to use if one is primarily looking at behavioral change.

6.1. Limitations of the study

Caution should be used when interpreting the results from this outcome review due to the limited number of studies available. Along with the limited number of studies reviewed, sample sizes tended to be small in the individual studies, which limit statistical power to detect treatment effects and generalizability. Moreover, most of the studies examined used a quasi-experimental design with only one study (Froeschle et al., 2007) employing a true experimental design with randomization, which has the highest controls for threats to internal validity (Kazdin, 1992; Rubin & Babbie, 2005). This is not unusual given the fact that all of these studies were conducted in school settings, thus increasing our confidence in generalization of clinical findings but making randomization difficult to implement.

Despite these limitations, this review of the research literature shows that SFBT is achieving respectable outcomes when compared to other treatments that are being delivered in a community setting (Weisz, Chu, & Polo, 2004). Of particular note is the fact that most of the studies were conducted under real-world practice conditions and therefore the results show promise under typical school-based practice situations unlike the optimal clinical efficacy studies that have shown to be ineffective when the model is transferred into community practice settings (Kim, 2008). However, due to the non-significant results and mixed findings identified in this review, caution is warranted in drawing any definitive conclusions about the efficacy of SFBT in school settings.

7. Conclusion

Based on the results of the studies examined in this review it is recommended that practitioners may wish to explore further the use of SFBT in their work with children and adolescents in schools. Studies reviewed suggest that SFBT may be effectively applied with a range of academic and behavioral problems in which schools struggle. Age ranges for applications in schools also appear to be flexible. Studies reviewed showed a range of age groups with one of the strongest designed studies showing positive outcomes with 5th and 6th graders (Franklin et al., 2008). Positive results, however, were also achieved with adolescents suggesting that SFBT may be used effectively with both older children and adolescents. While SFBT shows promising findings, school-based professionals and researchers must work to provide more studies on this approach if a strong evidence-base is to be developed, especially with a grade point averages outcome since there were some non-significant and mixed results found in this review. Future studies need to examine more carefully which school-based populations and problem areas that SFBT are best suited to help. Researchers should also give attention to improving research designs on school-based studies of SFBT, and to continue using better measures as they replicate existing findings and explore new applications of SFBT in school-based settings.

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