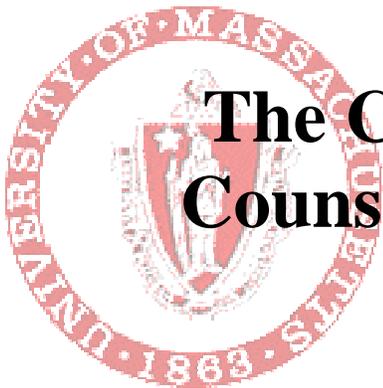


Center for School Counseling Outcome Research

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The Current Status of School Counseling Outcome Research

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The **Center for School Counseling Outcome Research** is dedicated to improving the practice of school counseling by developing the research base that is necessary for responsible and effective practice. The Center provides national leadership in the measurement and evaluation of the outcomes of school counseling interventions and programs. The Center Research Monograph Series presents original research that makes a contribution to evidence-based practice.

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INTRODUCTION

This paper will review some of the issues in school counseling outcome research and how these issues relate to the No Child Left Behind (NCLB) Legislation. Some basic information related to the NCLB mandates will be reviewed in terms of how they impact the school counseling profession and counselor accountability. Types of research will be described and a distinction will be made between research and evaluation. Additionally, this paper will include a discussion of evidence-based practice and an explanation of how all of these topics are relevant to school counselors and school counseling programs at this time. This will include a brief history of the school counseling movement from the mental health model to Comprehensive Developmental Guidance, and then to the American School Counseling Association's (ASCA) National Model and data-driven decision-making.

This paper will also include a summary of the comprehensive program evaluations that have occurred in the field of school counseling and a review of the literature about school counseling outcome research. This review of outcome research will encompass studies completed within the past 20 years, including reference to the inclusive reviews of studies that have been completed during this time frame. A short section will also be included to provide readers with some information on current Centers that exist across the nation which were created to help address some of the problems that will be discussed.

ACCOUNTABILITY ISSUES

No Child Left Behind

School counseling has great potential to help students achieve to high standards in the academic, career, and personal/social aspects of their lives (House & Martin, 1998). With the advent of NCLB (2001), school counselors have to work much harder to show that the work they are doing is helping school systems to meet the mandates established by this legislation. School counselors are now responsible for demonstrating their accountability just as teachers and administrators are.

Some of the key aspects in NCLB include an increased emphasis on quantitative measures related to academic achievement, attendance rates, graduation rates, and school safety. There are requirements to disaggregate outcome data in all of these areas, to show where the gaps exist, and to

demonstrate adequate yearly progress in enhancing achievement and closing the gaps. There is also an increased focus on accountability, which includes sanctions for schools that are not able to adequately demonstrate accountability in the required areas.

NCLB legislation is forcing school systems across the nation to focus on student outcomes. This focus on accountability and outcomes puts pressure on administrators, teachers, and school counselors alike. All of these professionals are responsible for making the changes that are mandated within NCLB and all need to be involved in the process of increasing student achievement, reducing the achievement gap, improving school attendance and graduation rates, and ensuring adequate levels of safety within school systems.

Scientifically Based Research

The No Child Left Behind Act includes frequent references to "scientifically-based research" and randomized field trials. Consequently, the U.S. Department of Education (DOE) recently formed the Institute of Education Sciences (IES). According to the IES, educational practice needs to be grounded in scientifically based research, which is research that involves the application of rigorous, systematic, and objective procedures in order to obtain reliable and valid knowledge relevant to educational activities and programs. This type of research involves rigorous data analyses that are adequate to test hypotheses and justify the general conclusions that are drawn. It also relies on measurement instruments and methods that provide reliable and valid data across evaluators and observers, across multiple measurements and observations, and across studies by the same or different investigators. It further requires research that uses experimental or quasi-experimental designs in which individuals, groups, programs, or activities are assigned to different conditions and with appropriate controls to evaluate the effects of the condition of interest. There is a preference for random-assignment experiments, or other designs to the extent that those designs contain within-condition or across-condition controls. Scientifically based research also ensures that experimental studies are presented in sufficient detail and clarity to allow for replication as well as the opportunity to build systematically on the findings.

One of the best ways to obtain high quality outcome data in a study is to use a randomized trial design. Randomization is very important because it assures that the participants being compared have the same characteristics across groups. For example, if two groups are being compared, students with low socioeconomic status have the same probability of being in group 1 or group 2. Without

randomization, there is no way to determine whether any differences found between the two groups resulted from conditions that existed before an intervention was implemented. Randomized trial studies are the "gold standard" of research methodology, however in practice this standard is very difficult to achieve in an educational setting. School counseling research studies are further hindered by the limited training most school counselors have in research and statistics.

Research versus Evaluation

There are several important distinctions that should be made between research and evaluation. According to Fitzpatrick, Sanders, & Worthen (2004) a primary distinction is the differing purpose of each, which subsequently impacts several other factors. According to the authors, the primary purpose of research is to add knowledge to a field and to contribute to the growth of theory. The primary purpose of evaluation is to help stakeholders make judgments or decisions. Research is intended for knowledge and program evaluation is intended for use.

The differing purposes of evaluation and research also impact the questions that are answered. Researchers often choose the hypotheses they are interested in investigating, while those conducting evaluation are often answering questions posed by stakeholders.

Another important distinction between evaluation and research is related to the generalizability of the results. Due to the purpose of evaluation, which often involves the description of a specific program or intervention, the results are less generalizable than research findings. Since the purpose of research is to add to existing theory or knowledge, the methods employed are often designed to maximize the generalizability of the findings to many different settings. The generalizability of results is also impacted by the criteria or standards that are used. Research methodology is typically far more stringent than evaluation methodology. Research will often utilize empirical research designs (experimental or quasi-experimental, multiple controls, qualitative and quantitative) including standardized interventions and multiple sites, thereby allowing for generalizability of information for evidence-based practice. The research designs in evaluation are often less stringent and may include case studies, documentation of an intervention at a single site, quantitative or qualitative data, and local confirmation of program/intervention impact for planning and accountability.

This distinction between research and evaluation seems to further add to the confusion and problems related to school counseling studies. Based on the

mandates established by NCLB it seems crucial that the school counseling profession attempt to promote high quality research demonstrating the impact of school counseling programs on student achievement, the achievement gap, attendance and graduation rates, and issues of school safety. It seems very realistic to expect that the school counseling profession will benefit enormously by encouraging research that establishes the effects of “standardized” programs and interventions on NCLB outcomes. Scientifically based school counseling outcome research can help to answer questions about which school counseling practices are validated by strong empirical evidence that demonstrates gains in academic achievement and other NCLB mandates. Quality studies can also help to identify which career and personal/social outcomes lead to improved academic outcomes. However, it is not always realistic for counselors to conduct such studies. At times evaluation is needed and is an adequate way to answer the questions that need answering.

RELEVANCE TO SCHOOL COUNSELING PROGRAMS

Role of the School Counselor

An ongoing issue in the field of school counseling is a general lack of understanding by critical stakeholders about what school counselors do that impacts student outcomes. School counselors have historically been trained as mental health providers rather than as student advocates, school leaders, and empirical researchers. This trend is slowly changing however, and counselors are beginning to gain the necessary training to develop these skills.

Many counseling programs are still operating under a student services model. The focus of counselors' work is related to career planning and placement, problem solving, and class scheduling. Under this model, counselors are spending the majority of their time providing services to a small number of students who have the greatest needs. They are providing individual counseling services to the most needy students and are reacting to crisis situations as they arise. Functioning within this framework, school counselors are not able to provide proactive services or address the needs of the larger body of students.

The Comprehensive Developmental Guidance (CDG) Program model (Gysbers & Henderson, 2000) emerged during the 1970's and emphasizes school counseling as a core educational program rather than a set of ancillary support services. CDG programs are designed to promote student competence and to prevent problems. Counselors implementing these programs are responsible for a

guidance curriculum based on student learning objectives and outcomes and the programs are designed to serve all students well. The CDG guidance curriculum structures student competencies in Academic, Career, and Personal/Social domains, with grade-specific learning outcomes for students PreK-12. The ASCA National Standards (Campbell & Dahir, 1997) were developed to standardize these learning objectives and outcomes (Table 1).

Table 1. ASCA National Standard listed by domain areas. (Campbell & Dahir, 1997)

Academic Development	Standard A	Students will acquire the attitudes, knowledge and skills contributing to effective learning in school and across the life span.
	Standard B	Students will complete school with the academic preparation essential to choose from a wide range of substantial post-secondary options, including college.
	Standard C	Students will understand the relationship of academics to the world of work and to life at home and in the community.
Career Development	Standard A	Students will acquire the skills to investigate the world of work in relation to knowledge of self and to make informed career decision.
	Standard B	Students will employ strategies to achieve future career success and satisfaction.
	Standard C	Students will understand the relationship between personal qualities, education and training and the world of work.
Personal/Social Development	Standard A	Students will acquire the attitudes, knowledge and interpersonal skills to help them understand and respect self and others.
	Standard B	Students will make decisions, set goals and take necessary action to achieve goals.
	Standard C	Students will understand safety and survival skills.

These standards are statements of what all students should know and be able to do as result of participating in CDG programs. They help school counseling programs to establish similar goals, expectations, support systems and experiences for all students. They also serve as an organizational tool to identify and prioritize the elements of an effective school counseling program to help enhance student learning.

ASCA National Model

In response to the challenges and pressures to implement standards-based educational programs, the American School Counselor Association released “The ASCA National Model: A Framework for School Counseling Programs” (ASCA, 2003). The National Model is based on the Comprehensive Developmental

Guidance program model, with an increased focus on both accountability and the use of data to make decisions and to increase student achievement. The National Model states that school counseling programs:

- Are focused on improving academic achievement and eliminating the achievement gap;
- Operate from a mission that is connected with the school district's mission and state and national educational reform agendas;
- Operate from a formal set of student learning objectives that are connected to the ASCA National Standards, aligned with state curriculum frameworks, aligned with district standards, and based on measurable student learning outcomes;
- Are data-driven and accountable for student outcomes (ASCA, 2003).

The National Model encourages counselors to complete yearly results reports with data about student change, to develop school counselor performance standards for constructing job descriptions and annual performance evaluations, and to conduct periodic program audits to ensure that the school counseling program is targeted at the right goals and implementing interventions effectively. Because many states have already adopted some variation of a CDG model, it will not be a significant transition for those states to adopt the National Model. However, for states or districts operating from a student services model, the transition may be significant and time-consuming (Carey, Dimmitt, & Harrity, 2004). Unless these changes occur in the field, however, school counselors risk being left out of the picture of school reform and risk losing their jobs.

School Counseling Program Evaluation Studies

CDG Programs that are implemented well have been shown to positively impact student outcomes and educational experiences. Two large scale (state-wide) evaluations have been completed and produced positive findings related to the implementation of CDG Programs (Lapan, Gysbers, & Petroski, 2001; Lapan, Gysbers, & Sun, 1997). School data from the Missouri accreditation program was gathered and hierarchical linear modeling was used to study the relationships between the level of CDG program implementation and a variety of student outcomes. These studies indicate that in schools with more fully implemented CDG programs students reported earning higher grades, having better relationships with teachers, and feeling greater satisfaction with school. Students also reported that education is relevant to later life, school is safe, and high school students reported that career and college information was accessible.

Though these results sound promising, there were several measurement problems with the studies. The research by itself does not prove that the implementation of the CDG program was responsible for the positive outcomes noted. Given the correlational nature of the study, it could just as well be, for example, that the schools that are fully implementing the CDG model were also implementing other educational programs that directly impact academic achievement. More complete guidance implementation and higher student grades might both result from the schools' organizational structure, leadership and/or personnel strengths rather than being causally related to each other.

Another problem with the studies is related to the self-report nature of the data that was collected, which makes it impossible to measure the effect size of the implementation of the CDG program. No additional institutional data was used to cross-validate the information students, teachers, or counselors were reporting. Future studies of this sort would ideally have inclusion of standardized achievement measures in addition to other institutional data, a report of intervention effect size, and/or some check of integrity related to the implementation of the program components.

CURRENT STATUS OF SCHOOL COUNSELING OUTCOME RESEARCH

A review of the school counseling outcome literature for the past 20 years found several counseling studies that were done very well and many which were not done quite as well. There were also several comprehensive outcome studies that examined multiple counseling studies and outcome findings.

Comprehensive Reviews of the Literature

Whiston & Sexton (1998) completed a very broad and comprehensive qualitative review of the K-12 school counseling outcome literature. Their review included a summary of 50 school counseling outcome studies published between 1988 and 1995. This exceptional article included positive program findings in each of the ASCA domains. There were also many inconclusive results, however, and many recommendations for additional studies. Findings related to this review will be summarized throughout the sections that follow. Borders & Drury (1992) also completed a broad, comprehensive, qualitative review that critiqued many existing school counseling studies and also indicated the need for further study.

Gerler (1985) completed a qualitative review of school counseling interventions at the elementary school level. He focused on findings about teacher

consultations, counseling, and classroom guidance interventions. Outcome measures included academic achievement, self-esteem, and behaviors. His conclusion, based on review of these articles, was that classroom guidance can improve elementary school students' behaviors.

St. Clair (1989) completed a comprehensive, qualitative review of school counseling outcome research at the middle school level. The interventions reviewed were relaxation training, group counseling, and career programs. The outcomes that were measured included academic achievement, behaviors, self-concept and attitudes. The results of this review indicated that (1) a short academic skills workshop can increase middle school students' grades, (2) a short nontraditional career workshop can alter middle school students' occupational stereotypes, and (3) a four-month long human relations training for middle school students can reduce referrals for disciplinary problems.

Wilson (1986) focused on counselor interventions with low achieving students and their parents to determine whether school counseling interventions are effective in boosting academic achievement as measured by grade point average (GPA). This review included 19 studies over a 25-year period. Summary information suggested that counseling interventions can have positive effects on academic achievement.

Classroom Guidance Curriculum

A review of the school counseling outcome literature that focused specifically on classroom guidance produced a number of studies that demonstrated positive outcomes. One general finding in this area was that comprehensive curriculums about career, academic and social/personal development can positively impact student knowledge in each of those domains (Bergin & Miller, 1990; Gerler & Anderson, 1986; Gerler & Drew, 1990; Gerler, Kinney & Anderson, 1985). As has been stressed throughout this paper, the importance of demonstrating a relationship between school counseling interventions and student academic achievement is especially important. The increased focus on school counseling curriculum interventions in both the CDG program model and the National Model requires related research demonstrating that this is an effective way for school counselors to impact student outcomes.

Curriculum Related to Academic Achievement

Sink & Stroh (2003) completed a large-scale (state-wide) study using a causal comparative design to answer the research question, “Do school counseling interventions in elementary schools with (CDG) programs foster higher academic achievement test scores in students?” This study was completed exceptionally well from a measurement perspective and provides excellent support and validation for the hard work that school counselors are doing. For this reason, it will be presented in more detail than many of the other studies that will be reviewed.

One hundred and fifty public elementary schools from Washington State were randomly selected to participate in the study. The schools selected and the students within the schools represented the diversity levels throughout the state. The schools were split into treatment (research) groups and comparison groups based on the level of CDG that was implemented within the buildings. Standardized norm-referenced and criterion-referenced test score data was used to assess the academic achievement of the students participating in the study. This included Grade 3 Iowa Test of Basic Skills (ITBS) Vocabulary, Comprehension, Writing, and Mathematics test scores (norm-referenced test) and Grade 4 Washington Assessment of Student Learning (WASL) Listening, Reading, Writing, and Mathematics test scores (criterion-referenced test).

Findings from this study (Sink & Stroh, 2003) indicate that early elementary-age students who attend the same school for three or more years do better academically when there is a CDG program, even if the CDG program is not fully implemented. Additionally, students who remain in the same school for multiple years with a well-implemented CDG program will obtain higher achievement test scores than students who attend schools without such programs.

In another exceptionally well-done comprehensive study, Brigman and Campbell (2003) used a quasi-experimental, pre-post test design to evaluate the impact of a school-counselor-led intervention on student academic achievement and school success behaviors. The Math and Reading scores from the Florida Comprehensive Assessment Test (FCAT) were used to assess academic improvement. The researchers randomly selected 185 experimental (treatment) group students and 185 comparison group students in grades 5, 6, 8, and 9, all of whom had initially scored between the 25th and 50th percentile on the FCAT. Students were selected from three elementary schools, one middle school, and two high schools. Treatment group students participated in the Student Success Skills curriculum,

which focuses on cognitive, social, and self-management skills. Comparison group students were not exposed to the curriculum.

The results of this study indicated a significant difference between treatment and comparison groups on reading and math scores. These results provide very strong support for the conclusion that school counseling interventions that focus on the development of cognitive, social, and self-management skills can result in sizable gains in student academic achievement.

There have been a few additional studies that assessed the effects of guidance curriculum on students' academic achievement. Gerler & Herndon (1993) conducted a study to evaluate the effectiveness of a 10-session, multimodal guidance unit called "Succeeding in School," which was designed to improve academic performance. The results of this study demonstrated that students improved their awareness of how to succeed in school after the intervention. Lee (1993) conducted a similar study to replicate Gerler & Herndon's (1993) work in another part of the country. She used the same materials to examine the effects of the classroom guidance intervention on the academic achievement of 236 fourth-, fifth-, and sixth-grade students from six schools in the Long Beach (CA) Unified School District. Again, students from a variety of economic, social, and cultural backgrounds participated in the study and were randomly assigned to treatment and comparison groups. The treatment group students received the curriculum while the comparison group students did not. Teachers completed pre-and post-test ratings on students' academic achievement in math, language arts, and conduct. Significant differences were found between the treatment and control groups on the pre- and posttest math scores suggesting that this curriculum can positively influence students' academic achievement in math. The author reports that these results are not consistent with Gerler & Herndon's (1993) findings, and cautions that teachers were aware of which students were in treatment and control groups and so teacher ratings may have been biased.

It should also be noted that the curriculum in both studies was implemented by guidance counselors who had completed a training session on how to use the materials and implement the intervention. While all counselors used the same materials, there is no way to control for pedagogical skills and personal characteristics of the counselors involved. Additionally, both studies relied on teacher ratings and student self-report data and there was no reliability or validity evidence available for any of the reporting instruments used in either study.

Curriculum Related to Student Behaviors and Attitudes

The most extensively researched curriculum designed to improve student behaviors is the Second Step Violence Prevention Curriculum developed by the Committee for Children. Grossman et al. (1997) conducted a randomized field trial of the Second Step curriculum with 790 2nd and 3rd grade students in Washington. Outcomes measured were teacher ratings on the Achenbach Child Behavior Checklist (CBC) and the School Social Behavior Scales, parent ratings on the Achenbach CBC and the Parent-Child Rating Scale, and behavioral observations using the Social Interaction Observation System. Outcomes were measured prior to the curriculum intervention, 2 weeks after the intervention, and 6 months after the intervention. The researchers took into consideration the covariance of special education status or learning disorders, behavioral problems, SES, family composition, primary language, classroom atmosphere and academic performance in their analysis of the impact of the intervention.

The findings were that observed physically aggressive behavior decreased significantly in playground and cafeteria settings and that observed neutral/prosocial behavior increased significantly in the same settings. Parent and teacher ratings did not change significantly. Despite these modest findings, because this study used a repeated measures design that controlled for many mediating factors and it used reliable and valid instruments to measure outcomes, this research is powerful evidence of the value of this curricular intervention.

Flannery, et al. (2003) implemented the *PeaceBuilders* curriculum, which focuses on reducing aggressive behavior and increasing social competence with students grades K-5. They found increases in prosocial behavior and decreases in teacher-reported aggressive behavior, with greater impact for those who were initially lower in skills at the beginning of the study. The *Warning Signs* curriculum did not show significant differences in experimental vs. control groups in educating urban high school students about potential violence in themselves and others (Schaefer-Schiomo & Ginsberg, 2003).

Classroom curriculum designed to educate HS students about goal-setting, problem-solving, career exploration, and school resources significantly improved student behavior, attitude and knowledge in these areas (Schlossberg, Morris, & Lieberman, 2001). Classroom curriculum about stress reduction techniques helped improve student self-concept, sense of locus of control, and appropriate coping strategies (Henderson, Kelbey, & Engebretson, 1992). An alternate stress reduction program helped high school students reduce anxiety and stress related

symptoms (Kiselica, Baker, Thomas, & Reedy, 1994). Cheek, Bradley, Reynolds, & Coy (2003) also found evidence to support a school counseling intervention that helped elementary students reduce test-anxiety and improve test scores.

Social skills training was found to increase the social attractiveness of gifted and special needs students, but did not impact student self-esteem or school behaviors (Ciechalski & Schmidt, 1995). Derosier (2004) found that a social skills intervention enhanced third-grade students' self-esteem and self-efficacy and decreased social anxiety and aggressiveness. Multicultural conflict resolution education provided students with more positive perspectives on conflict and helped to build related skills, but did not impact on cultural understanding (Graham & Pulvino, 2000).

The review completed by Whiston & Sexton (1998) revealed that (1) study skills interventions have been shown to enhance 4th grade academic achievement as measured by the California Test of Basic Skills, and (2) multicultural understanding intervention can enhance 3rd graders' social skills and reduce arguments.

Responsive Services

A review of the responsive services provided by school counselors and the outcome studies that have been completed in this area produced many positive findings, though once again, there is room for improvement in the methodology of many of the studies and the resultant conclusions that have been drawn. Responsive services have been categorized as group counseling, peer counseling, and individual counseling services for the purposes of this review. The literature in each of these areas will be presented.

Group Counseling

A study conducted by Brantley & Brantley (1996) found that group counseling can make a significant difference in reducing acting-out behaviors in at-risk inner-city elementary students. Group counseling interventions also helped improve students' overall behavioral adjustment (Nelson & Dykeman, 1996; Shechtman, 1993). Cognitive-behavioral groups produced significant increases in self-esteem and academic self-concept of high school students (Bauer, Sapp, & Johnson, 2000). Small group counseling sessions helped to improve racial attitudes with elementary students (Reeder, Douzenis, & Vanderwood, 1997). Group counseling interventions helped to improve the self-concept of children of

alcoholics (Riddle, Bergin, and Douzenis, 1997) and Zink & Littrell (2000) found that group counseling sessions were effective for reducing the at-risk behaviors of adolescent girls.

The results of outcome studies related to issues of divorce showed that group counseling can improve self-esteem, and reduce hostility and aggression with children from divorced families (Omizo & Omizo, 1988; Omizo & Omizo, 1987; Tedder, Scherman, & Wantz, 1987). An additional study provided showed that adolescents who participated in divorce groups improved their attitudes toward divorce (Anderson, Kinney, & Gerler (1984).

Studies related to learning disabled (LD) students reported that LD students who participated in group counseling had higher levels of self-esteem (Omizo & Omizo, 1987) and the STEP intervention improved parental attitudes and locus of control of their learning disabled children (Williams, Omizo, & Abrams, 1984).

Results from additional studies indicated that small group counseling sessions helped to improve racial attitudes with elementary students (Reeder, Douzenis, & Vanderwood, 1997) and group counseling interventions helped to improve the self-concept of children of alcoholics (Riddle, Bergin, and Douzenis, 1997). Zink & Littrell (2000) found that group counseling sessions were effective for reducing the at-risk behaviors of adolescent girls.

Prout and Prout (1998) found that school based psychotherapy has demonstrable beneficial effects on student well being but not academic achievement. Wilson (1986) found that directive counseling and behavioral counseling had positive effects on academic achievement with underachieving students. Additionally, including skills training improved effectiveness. Group counseling can improve elementary student's school behavior (Gerler, 1985). The review of outcome research completed by Whiston & Sexton (1998) also revealed that group-format social skills training develops adolescents' skills and reduces aggressive and hostile behavior. Additionally, that peer mediation programs help the trained mediators who showed transfer of knowledge outside school setting.

The outcome studies reviewed by St. Claire (1989) indicated that group cognitive-behavioral and relaxation training interventions with middle school students can reduce teacher reports and referrals for disciplinary problems and that group counseling can improve middle school students' self concept. Bundy & Poppen (1986) reported that Behavioral and Adlerian consultation with teachers can improve elementary students' academic performance, work habits, and

classroom behavior and Adlerian parent consultation and parent effectiveness training can increase student academic performance, student motivation and parent-child relationship quality.

Peer Counseling

A review of the school counseling outcome research related to peer tutoring and counseling services indicated that peer counseling training programs provided many benefits to students, schools, and community (Bowman & Myrick, 1987; Robinson, Morrow, Kigin, & Linderman, 1991). Peer counselors gained significant knowledge and skills as a result of their training (Robinson et al, 1991; Morey, Miller, Rosen, & Fulton, 1993). Additionally, students' attendance, grades, attitudes, and classroom behaviors improved as a result of peer intervention services (Bowman & Myrick, 1987; Diver-Stamnes, 1991; Tobias & Myrick, 1999). Peer counseling for middle school students experiencing a family divorce produced positive results for peer helpers and the students receiving support (Sprinthall & Hall, 1992) and peer-mediated self-evaluation procedures helped improve the recess behaviors of elementary students with behavior problems. Carty, Rosenbaum, Lafreniere, & Sutton (2000) also completed a 4-year longitudinal study of peer counseling and the effects on adolescent development. Their findings indicated that students who received peer counseling services scored significantly higher on coping and social skills scales.

A critique of these findings indicated that many of the studies tended to focus on the training and benefits to the facilitators of the peer intervention programs rather than on the outcomes related to the students being counseled. As demonstrated above, there were findings that students receiving the peer counseling services did benefit from the services, however; it appears that the students providing the peer intervention services are often benefiting to a larger degree from the services they are providing to students.

Individual Counseling

There were not many outcome studies that reported on individual counseling services being implemented within the school setting. However, a comprehensive drop out prevention program involving counseling and tutoring significantly assisted at-risk students in improving school achievement, self-esteem, and classroom behavior (Edmonson & White, 1998). Also, Littrell, Malia, & Vanderwood (1995) determined that single-session brief counseling helped with the social emotional adjustment of high school students. These students were able

to reduce their concerns about problems and move closer to their goals. These two studies were designed and implemented very well and provide positive examples of studies looking to address the individual counseling that occurs in schools.

Career Development

There have been many studies that have attempted to measure the effects of career interventions on students' career development, however career education in general has had small to moderate effects on a variety of outcome measures. A meta-analytic review by Baker & Taylor (1998) resulted in a mean effect size was equal to .34. The meta-analysis completed by Evans and Burck (1992) found that career education, in general, has minimal effects on academic achievement as measured by GPA. The mean effect size in this analysis was equal to .16, though career education has slightly larger effects on academic achievement for younger students, for average ability students, and when integrated into English or Math lessons.

A review of student occupational/vocational outcome studies revealed the following findings. Baker (2002) conducted an independent evaluation of the ASVAB Career Exploration Program with high school students and found that participation in the program lowered certain kinds of career indecision and increased career exploration knowledge. Peterson, Long, and Billups (1999) found that the level of career interventions administered to middle school students had a direct impact on students' abilities to understand their educational choices and the relationship between academic choices and careers. Fouad (1995) found that middle school students demonstrated improved knowledge and performance in math and science courses after participating in a math and science career awareness intervention. The DISCOVER program was shown to lead to more age-appropriate decision making in middle school students (Luzzo & Pierce, 1996). Counselors are cautioned however, that while career inventories are a helpful as part of career guidance programs designed to meet ASCA standards, school counselors should not rely too heavily on them (Jones, Sheffield, & Joyner, 2000).

Several studies documented the importance of adults' high expectations of students on students' aspirations, self-efficacy, and goals related to career plans and accomplishments (Alliman-Brissett, Turner, & Skovholt, 2004; Bobo, Hildreth, & Durodoyn, 1998; Mau, Hitchcock, & Calvert, 1998; Turner & Lapan, 2002). The review completed by Whiston and Sexton (1998) found that the 10th Grade Career Course based on Crites' Model enhanced students' career planning and reduced

career decision problems. They also found that career programs enhance career maturity of minority students and students with disabilities.

Several studies suggested that a thorough examination of students' school, family, and psychological background is essential for increasing the probability that students will realistically identify their educational and occupational aspirations and to help them complete the appropriate educational programs (Wahl & Blackhurst, 2000). Additionally, the unique educational and vocational needs and barriers facing different minority groups needs to be addressed in counseling programs (Mau & Bilkos, 2000; Fouad, 1995). Finally, it was reported that preparing students to make informed career choices is a developmental process spanning the entire K-12 curriculum and requiring counselors to have up-to-date knowledge about students' developmental needs as well as cultural values, job market trends, and postsecondary education options (Krass & Hughey, 1999).

FUTURE DIRECTIONS

National Centers

Center for School Counseling Outcome Research (CSCOR)

Due to many of the issues that have been discussed in this paper, the National Center for School Counseling Outcome Research at the University of Massachusetts, Amherst was established in 2002. The mission of CSCOR includes improving the practice of school counseling by developing the research base that is necessary for responsible and effective practice. The Center's mission is to provide national leadership in the measurement and evaluation of the outcomes of school counseling interventions and programs (CSCOR, 2004).

The Center is working to help enhance school counseling by offering national summer training sessions that focus on critical issues in the field. Two years ago the Center co-sponsored (with Education Trust) an Institute that taught counselors, administrators, and other educational leaders how to use data in their school systems to help all children succeed. Last year's focus was on the implementation of the ASCA National Model to help all children succeed, and the current one is on evidence-based school counseling interventions.

The Center also reviews the outcome literature in the field of school counseling on a regular basis and provides quarterly research briefs that summarize the exemplary outcome research that is being done in the field. Research

monographs related to critical issues in the counseling field are also posted as they become available.

Center for Student Support Systems (CS3)

The University of San Diego School of Education established The Center for Student Support Systems in December 2002 in response to an urgent need to improve the quality of guidance and counseling and related student support programs and services in California and beyond. The purpose of CS3 is to strengthen the practice of counseling and related student support services in schools by improving theory, leadership and advocacy, and program development and evaluation. The center's vision is that all K-12 students in California and beyond be served by data-driven comprehensive student support systems (CS3, 2004).

This Center's programs include collaborative action research projects conducted in conjunction with the *Annual Forum and* externally funded research projects focused on school guidance and counseling programs and student support programs in general. CS3 also offers workshops, trainings, and related professional development activities for counselors and other student support personnel, a library of books and resources for counseling practitioners and counselors-in-training, and advocacy and leadership in revitalizing California student support systems (CS3, 2004).

Washington School Research Center (WSRC)

The Washington School Research Center is an independent research and data analysis center within Seattle Pacific University. The Center began in July 2000, funded through a gift from the Bill & Melinda Gates Foundation. The Center mission is to conduct sound and objective research on student learning in the public schools, and to make the research findings available for educators, policy makers, and the general public for use in the improvement of schools. It is the belief of the WSRC that sound data and appropriate data analysis are vital components for the identification of school and classroom practices related to increased student academic achievement. The WSRC conducts educational studies on various aspects of K-12 education in Washington, particularly in the area of the current school reform efforts (WSRC, 2004).

National School Counseling Research Center (NSCRC)

The National School Counseling Research Center is currently being developed through a joint endeavor between the American School Counseling

Association (ASCA) and the Association for Counselor Education and Supervision (ACES). The mission of the NSCRS is to enhance school counseling by collecting and dissemination information that facilitates school counseling professionals' efforts to be accountable for student success.

The NSCRC plans to provide leadership in the development, promotion, facilitation and dissemination of school counseling research demonstrating the connection between school counseling programs and student success. It is believed that this research can inform and shape policy change at the local, state and federal levels and allow school counselors to more fully implement comprehensive and culturally responsive approaches to removing the systemic barriers to the academic achievement of all students (ASCA, 2004).

National Panel for School Counseling Evidence-Based Practice

Evidence-based practices have been developed in many fields to help practitioners gain access to strong, useful literature about the research that has been completed in a field. To address this need in the field of school counseling, the CSCOR has developed the National Panel for School Counseling Evidence Based Practice, which is composed of school counseling educators and practitioners who have been identified as experts in the field. Panel members are currently evaluating existing methods of evidence-based practice by reviewing the research literature so that they may establish rules of evidence to determine whether a practice can be identified as evidence-based. The panel is identifying rules for judging strong evidence, identifying needed research, and communicating their findings to other practitioners and researchers.

SUMMARY

School counselors, like all educational professionals, are increasingly being required to demonstrate evidence of effective practice. Research that helps school counselors choose which program components and interventions most effectively and efficiently improve student outcomes has become more crucial to the field. School counselors need to be informed consumers of research, and also need the necessary skills to conduct evaluation studies of their programs and interventions. Research conducted in education, psychology, sociology, and other related fields which is relevant to school counseling practice will need to be incorporated into counselor education, as will more information about program evaluation.

This review has summarized the school counseling outcome studies to date, and it is clearly imperative that more studies be completed and published as soon as possible. With strong research as a foundation for programmatic decision-making, school counselors can better serve their students and communities.

With the advent of several centers for school counseling which have as stated goals the dissemination of information about research, evaluation of practice, and the impact of school counseling on educational outcomes, important necessary changes are being implemented. The establishment of the National Panel for School Counseling Evidence Based Practice is another essential improvement in the field. School counseling is increasingly well positioned to address accountability demands, and school counselors are progressively more able to demonstrate how and why they make a difference in students' lives.

REFERENCES

- Alliman-Brissett, A. E., Turner, S. L., & Skovholt, T. M. (2004). Parent support and African American adolescents' career self-efficacy. *Professional School Counseling, 7*(3), 124-133.
- American School Counselor Association (2003). *The ASCA national model: A framework for school counseling programs*. Washington, D.C.: Author.
- Amerikaner, M., & Summerlin, M. L. (1982). Group counseling with learning disabled children: Effects of social skills and relaxation training on self-concept and classroom behavior. *Journal of Learning Disabilities, 15*(6), 340-343.
- Anderson, R. F., Kinney, J., & Gerler, Jr., E. R. (1984). The effects of divorce groups on children's classroom behavior and attitudes toward divorce. *Elementary School Guidance and Counseling, 70-76*.
- Ang, R. P., & Hughes, J. N. (2001). Differential benefits of skills training with antisocial youth based on group composition: A meta-analytic investigation. *School Psychology Review 31*(2), 164-185.
- Baker, S. B., & Taylor, J. G. (1998). Effects of career education interventions: A meta-analysis. *Career Development Quarterly, 46*, 376-385.
- Bauer, S. R., Sapp, M., & Johnson, D. (2000). Group counseling strategies for rural at-risk high school students. *High School Journal, 83*(2), 41-51.

- Bergin, J. J., Miller, S. E., Bergin, J. W., & Koch, R. E. (1990). The effects of a comprehensive guidance model on a rural school's counseling program. *Elementary School Guidance and Counseling, 25*(1), 37-45.
- Bobo, M., Hildreth, B. L., & Durodoye, B. (1998). Changing patterns in career choices among African American, Hispanic, and Anglo children. *Professional School Counseling, 1*(4), 37-43.
- Borders, D. L., & Drury, S. M. (1992). Comprehensive school counseling programs: A review for policymakers and practitioners. *Journal of Counseling and Development, 70*, 487-498.
- Bowman, R. P., & Myrick, R.D. (1981). Effect of an elementary school peer facilitator program on student helpers and on problem-behavior helpees. *School Counselor, 34*(369-378).
- Bowman, R. P., & Myrick, R. D. (1987). Effects of an elementary school peer facilitator program on children with behavior problems. *The School Counselor, 369-377*.
- Brantley, L. S., & Brantley, P.S. (1996). Transforming acting-out behavior: a group counseling program for inner-city elementary school pupils. *Elementary School Guidance and Counseling, 31*(2).
- Carey, J., Dimmitt, C., & Harrity, J. (in press). The development of a self-assessment instrument to measure a school district's readiness to implement the ASCA national model. *Professional School Counseling*.
- Carty, L., Rosenbaum, J. N., Lafreniere, K., & Sutton, J. (2000). Peer group counseling: An intervention that works. *Guidance and Counseling, 15*(2), 2-8.
- Carty, L., Rosenbaum, J. N., Rajacich, D., Lafreniere, K., Bruce, E., Compton, L., Simpson, M. A. (2000). Non-smoking youth through peer group counseling. *Guidance and Counseling, 16*(1), 32-39.
- Cheek, J. R., Bradley, L. J., Reynolds, J., & Coy, D. (2002). An intervention for helping elementary students reduce test anxiety. *Professional School Counseling, 6*(2), 162-165.
- Ciechalski, J. C., & Schmidt, M.W. (1995). The effects of social skills training on students with exceptionalities. *Elementary School Guidance and Counseling, 29*(3), 217-223.
- Cobb, H. C., & Richards, H. C. (1983). Efficacy of counseling services in decreasing behavior problems of elementary school children. *Elementary School Guidance and Counseling, 180-187*.
- CSCOR (2004). *Center for School Counseling Outcome Research*. Retrieved December 8, 2004 from <http://umass.edu/schoolcounseling>

- CS3 (2004). *Center for Student Support Systems*. Retrieved December 8, 2004 from <http://www.sandiego.edu/soe/instcenter/studentsupp/about/>
- D'Andrea, M., & Daniels, J. (1995). Helping students learn to get along: Assessing the effectiveness of a multicultural developmental guidance project. *Elementary School Guidance and Counseling, 30*, 143-154.
- DeRosier, M. E. (2004). Building relationships and combating bullying: Effectiveness of a school-based social skills group intervention. *Journal of Clinical Child and Adolescent Psychology, 33*(1), 196-201.
- Diver-Stamens, A. C. (1991). Assessing the effectiveness of an inner-city high school peer counseling program. *Urban Education, 26*, 269-284.
- Edmondson, J. H., & White, J. (1998). A tutorial and counseling program: Helping students at-risk of dropping out of school. *Professional School Counseling, 1*(4), 43-51.
- Evans, J. H., & Burck, H.D. (1992). The effects of career education interventions on academic achievement: A meta-analysis. *Journal of Counseling & Development, 71*, 63-68.
- Fitzpatrick, J. L., Sanders, J. R., & Worthen, R. R. (2004). *Program evaluation: Alternative approaches and practical guidelines, 3rd ed.* (pp. 5-9). Boston: Pearson Education, Inc.
- Flannery, D. J., Vazsonyi, A. T., Liao, A. K., Guo, S., Powell, K. E., Atha, H., Vesterdal, W., & Embry, D. (2003). Initial behavior outcomes for the peacebuilders universal school-based violence prevention program. *Developmental Psychology, 39*(2), 292-308.
- Fouad, N. A. (1995). Career linking: An intervention to promote math and science career awareness. *Journal of Counseling & Development, 73*, 527-534.
- Gerler, E. R., & Anderson, R.F. (1986). The effects of classroom guidance on children's success in school. *Journal of Counseling & Development, 65*, 78-81.
- Gerler, E. R., & Drew, N.S. (1990). Succeeding in middle school: A multimodal approach. *Elementary School Guidance and Counseling, 24*(4), 263-272.
- Gerler, E. R., & Herndon, E.Y. (1993). Learning how to succeed academically in middle school. *Elementary School Guidance and Counseling, 27*(3), 186-197.
- Gerler, J. E. R. (1980). A longitudinal study of multimodal approaches to small group psychological education. *The School Counselor, 184-190*.
- Gerler, J. E. R. (1985). Elementary school counseling research and the classroom learning environment. *Elementary School Guidance and Counseling, 20*, 39-48.

- Gerler, J. E. R., Kinney, J., Anderson, R. F. (1985). The effects of counseling on classroom performance. *Humanistic Education and development*, 155-165.
- Gilbert, J. N., & Orlick, T. (1996). Evaluation of a life skills program with grade 2 children. *Elementary School Guidance and Counseling*, 31, 139-150.
- Graham, B. C., & Pulvino, C. (2000). Multicultural conflict resolution: Development, implementation, and assessment of a program for third graders. *Professional School Counseling*, 3(3), 172-182.
- Grossman, D. C., Neckerman, H. J., Koepsell, T. D., Liu, P., Asher, K. N., Beland, K., Frey, K., & Rivara, F. P. (1997). Effectiveness of a violence prevention curriculum among children in elementary school. *Journal of the American Medical Association*, 277(20), 1605-1611.
- Gysbers, N. C. & Henderson, P. (2000). *Developing and managing your school guidance program*. (3rd ed.). Alexandria, VA: American School Counseling Association.
- Hadley, H. R. (1988). Improving reading scores through a self-esteem intervention program. *Elementary School Guidance and Counseling*, 248-252.
- Helwig, A. A. (2004). A ten-year longitudinal study of the career development of students: summary findings. *Journal of Counseling & Development*, 82(1), 49-58.
- Henderson, P. A., Kelby, T.J., & Engebretson, K.M. (1992). Effects of a stress-control program on children's locus of control, self-concept, and coping behavior. *The School Counselor*, 40, 125-130.
- Hoag, M. J., & Burlingame, G. M. (1997). Evaluating the effectiveness of child and adolescent group treatment: A meta-analytic review. *Journal of Clinical Child Psychology*, 26(3), 234-246.
- House, R. M., & Hayes, R. L. (2002). School counselors: Becoming key players in school reform. *Professional School Counseling*, 5(4), 1096-2009.
- House, R. M. & Martin, P. J. (1998). Advocating for better futures for all students: A new vision for school counselors. *Education*, 119, 284-291.
- Hughey, K. J., Lapan, R. T., & Gysbers, N. C. (1993). Evaluation a high school guidance-language arts career unit: A qualitative approach. *The School Counselor*, 41, 96-101.
- Jones, L. K., Sheffield, D., & Joyner, B. (2000). Comparing the effects of the career key with self-directed search and job-OE among eighth grade students. *Professional School Counseling*, 3(4), 238-250.

- Kavale, K. A., & Forness, S. R. (1996). Social skill deficits and learning disabilities: A meta-analysis. *Journal of Learning Disabilities, 29*(3), 226-237.
- Kerr, B. A., & Ghrist-Priebe, S. L. (1988). Intervention for Multipotentiality: Effects of a career counseling laboratory for gifted high school students. *Journal of Counseling & Development, 66*, 366-369.
- Kiselica, M. S., Baker, S. B., Thomas, R. N. & Reedy, S. (1994). Effects of stress inoculation training on anxiety, stress, and academic performance of adolescents. *Journal of Counseling Psychology, 41*, 335-342.
- Krass, L. H., K. (1999). The impact of an intervention on career decision-making self-efficacy and career indecision. *Professional School Counseling, 2*(5), 384-396.
- Lane, P. S., & McWhirter, J.J. (1992). A peer mediation model: Conflict resolution for elementary and middle school children. *Elementary School Guidance and Counseling, 27*, 15-23.
- Lapan, R. T., Gysbers, N., Hughey, K., & Arni, T. J. (1993). Evaluating a guidance and language arts unit for high school juniors. *Journal of Counseling & Development, 71*, 444-451.
- Lapan, R. T., Gysbers, N. C., & Sun, Y. (1997). The impact of more fully implemented guidance programs on the school experiences of high school students: A statewide evaluation study. *Journal of Counseling & Development, 75*, 292-302.
- Lapan, R. T., Gysbers, N. C., & Petroski, G.F. (2001). Helping seventh graders be safe and successful: A statewide study of the impact of comprehensive guidance and counseling programs. *Journal of Counseling & Development, 79*, 320-330.
- Larson, J. H., & Butler, M. (1994). The effects of gender on career decision problems in young adults. *Journal of Counseling & Development, 73*(1), 79-85.
- Lee, R. S. (1993). Effects of classroom guidance on student achievement. *Elementary School Guidance and Counseling, 27*, 163-171.
- Littrell, J. M., Malia, J.A., & Vanderwood, M. (1995). Single-session brief counseling in high school. *Journal of Counseling & Development, 73*, 341-458.
- Luzzo, D. A., & Pierce, G. (1996). Effects of DISCOVER on the career maturity of middle school students. *Career Development Quarterly, 45*, 170-172.
- Luzzo, D. A., & MacGregor, M. W. (2001). Parctive and research in career counseling and development--2000. *The Career Development Quarterly, 50*, 102-139.
- Mau, W., Hitchcock, R., & Calvert, C. (1998). High school students' career plans: The influence of others' expectations. *Professional School Counseling, 2*(2), 161-166.

- Mau, W., & Bikos, L. (2000). Educational and vocational aspirations of minority and female students: A longitudinal study. *Journal of Counseling & Development, 78*, 186-194.
- Maron, J. (2002). Retrieved December 8, 2004 from <http://www.ncisc.org/webpages/nclbresourcepage2b.html>
- May, M., & Housley, W. (1996). The effects of group counseling on the self-esteem of sexually abused female adolescents. *Guidance and Counseling, 11*(4), 38-43.
- Morey, R. E., Miller, C.D., Rosen, L.A., & Fulton, R. (1993). High school peer counseling: The relationship between student satisfaction and peer counselors' style of helping. *The School Counselor, 40*, 293-300.
- Myrick, R. D., Highland, W.H., & Sabella, R.A. (1995). Peer helpers and perceived effectiveness. *Elementary School Guidance and Counseling, 29*(4), 278-290.
- No Child Left Behind Act of 2001, Pub. L. No. 107-110.
- Nelson, J. R., & Smith, D. J. (1995). The effects of a peer-mediated self-evaluation procedure on the recess behavior of students with disabilities. *Remedial & Special Education, 16*(2), 117-125.
- Nelson, J. R., & Dykeman, C. (1996). The effects of a group counseling intervention on students with behavioral adjustment problems. *Elementary School Guidance and Counseling, 31*(1), 21-34.
- Omizo, M. M., & Omizo, S. A. (1987). The effects of eliminating self-defeating behavior of learning-disabled children through group counseling. *The School Counselor, 282-288*.
- Omizo, M. M., & Omizo, S. A. (1987). Effects of parents' divorce and group participation on child-rearing attitudes and children's self-concept. *Journal of Humanistic Education and Development, 25*(3), 171-179.
- Omizo, M. M., & Omizo, S. A. (1988). The effects of participation in group counseling sessions on self-esteem and locus of control among adolescents from divorced families. *The School Counselor, 36*, 54-60.
- Omizo, M. M., Hershberger, J. M., & Omizo, S. A. (1998). Teaching children to cope with anger. *Elementary School Guidance and Counseling, 22*, 241-245.
- Page, R. C., & Chandler, J. (1994). Effects of group counseling on ninth-grade at-risk students. *Journal of Mental Health Counseling, 16*(3), 340-352.

- Peterson, G. W., Long, K.L., & Billups, A. (1999). The effect of three career interventions on the educational choices of eighth grade students. *Professional School Counseling, 3*(1), 34-42.
- Quinn, M. M., Kavale, K. A., Mathur, S. R., Rutherford, R. B., & Forness, S. R. (1999). A meta-analysis of social skill intervention for students with emotional or behavioral disorders. *Journal of Emotional & Behavioral Disorders, 7*(1), 54-65.
- Prout, S. M., & Prout, H. T. (1998). A meta-analysis of school-based studies of counseling and psychotherapy: An update. *Journal of School Psychology, 36*, 121-136.
- Rathvon, N. W. (1991). Effects of a guidance unit in two formats on the examination performance of underachieving middle school students. *The School Counselor, 38*, 294-304.
- Reeder, J., Douzenis, C., & Bergin, J.J. (1997). The effects of small group counseling on the racial attitudes of second grade students. *Professional School Counseling, 1*(2), 15-22.
- Riddle, J., Bergin, J.J., & Douzenis, C. (1997). Effects of group counseling on self-concepts of children of alcoholics. *Elementary School Guidance and Counseling, 31*, 192-202.
- Robinson, S. E., Morrow, S., Kigin, T., & Lindeman, M. (1991). Peer counselors in a high school setting: Evaluation of training and impact on students. *The School Counselor, 39*, 35-40.
- Sapp, M. (1994). Cognitive-behavioral counseling: Applications for African American middle school students who are academically at-risk. *Journal of Instructional Psychology, 21*(2).
- Schaefer-Schiumo, K., & Ginsberg, A. P. (2003). The effectiveness of the warning signs program in educating youth about violence prevention: A study with urban high school students. *Professional School Counseling, 7*(1), 1-9.
- Schlossberg, S. M., Morris, J.D., & Lieberman, M.G. (2001). The effects of a counselor-led guidance intervention on students' behaviors and attitudes. *Professional School Counseling, 4*, 156-164.
- Sexton, T. L. (1996). The relevance of counseling outcome research: Current trends and practical implications. *Journal of Counseling & Development, 74*, 590-600.
- Shechtman, Z. (1993). School adjustment and small-group therapy: An Israeli study. *Journal of Counseling & Development, 72*(1), 77-81.
- Sink, C. A., & Stroh, H. R. (2003). Raising achievement test scores of early elementary school students through comprehensive school counseling programs. *Professional School Counseling, 6*(5), 350-365.

- Somers, C. L., & Piliawsky, M. (2004). Drop-out prevention among urban, African American adolescents: Program evaluation and practical implications. *Preventing School Failure, 48*(3), 17-20.
- Sprinthall, N. A., Hall, J. S., & Gerler Jr., E. R. (1992). Peer counseling for middle school students experiencing family divorce: A deliberate psychological education model. *Elementary School Guidance and Counseling, 26*(4), 279-295.
- St. Clair, K. L. (1989). Middle school counseling research: A resource for school counselors. *Elementary School Guidance and Counseling, 23*, 219-226.
- Tedder, S. L., Scherman, A., & Wantz, R. A. (1987). Effectiveness of a support group for children of divorce. *Elementary School Guidance and Counseling, 102-109*.
- Tobias, A. K., & Myrick, R.D. (1999). A peer facilitator-led intervention with middle school problem-behavior students. *Professional School Counseling, 3*(1), 27-33.
- Trusty, J. (2002). Effects of high school course-taking and other variables on choice of science and mathematics college majors. *Journal of Counseling & Development, 80*(4), 464-475.
- Turner, S., & Lapan, R. T. (2002). Career self-efficacy and perceptions of parent support in adolescent career development. *Career Development Quarterly, 5*(1), 44-56.
- Verduyn, C. M. (1990). Social skills training in schools: An evaluation study. *Journal of Adolescence, 13*, 3-16.
- Wahl, K. H. B., A. (2000). Factors affecting the occupational and educational aspirations of children and adolescents. *Professional School Counseling, 3*(5), 367-373.
- WSCR (2004). *Washington School Research Center*. Retrieved December 8, 2004 from <http://www.spu.edu/wsrc/index.html>
- Whiston, S. C., & Sexton, T. L. (1998). A review of school counseling outcome research: Implications for practice. *Journal of Counseling & Development, 76*, 412-426.
- Williams, R. E., Omizo, M. M., & Abrams, B. C. (1984). Effects of STEP on parental attitudes and locus of control of their learning disabled children. *The School Counselor, 126-133*.
- Wilson, D. B., Gottfredson, D. C., & Najaka, S. S. (2001). School-based prevention of problem behaviors: A meta-analysis. *Journal of Quantitative Criminology, 17*(3), 247-272.
- Wilson, N. S. (1986). Counselor interventions with low-achieving and underachieving elementary, middle, and high school students: A review of the literature. *Journal of Counseling & Development, 64*, 628-634.

- Wilson, N. S. (1986). Effects of a classroom guidance unit on sixth graders' examination performance. *Journal of Humanistic Education and Development, 25*(2), 70-79.
- Wirth-Bond, S., Coyne, A., & Adams, M. (1991). A school counseling program that reduces dropout rate. *The School Counselor, 39*, 131-137.
- Yorke, C., & Stewart, J. (1990). Career clubs and career peer counseling in rural secondary schools. *Guidance and Counseling, 6*(1), 25-33.
- Zinck, K., & Littrell, J.M. (2000). Action research shows group counseling effective with at-risk adolescent girls. *Professional School Counseling, 4*(1), 50-60.