ABSTRACT

RUPARD, MELINDA DENISE. Development and Validation of a Measure of Social Support for School Consultation. (Under the direction of William P. Erchul).

Consultation is a process whereby school psychologists assist teachers in developing effective strategies for solving student problems while helping teachers to develop skills themselves to solve student issues. The purpose of this dissertation was to construct a reliable and valid instrument to assess social support within consultation.

Erchul and Marten's (2002) model of school consultation consists of three interrelated tasks: problem solving, social influence, and support and development. However, to date no research has directly investigated the role of support within school consultation. Various methods exist to assess support; however, most are not applicable to consultation.

Items on the School Consultation Support Scale (SCSS) were designed to assess four dimensions of support based on House's (1981) conceptualization (i.e., emotional, informational, instrumental, and appraisal). One thousand elementary school teachers were mailed a questionnaire that consisted of the Consultant Evaluation Form (CEF; Erchul, 1987), SCSS, Interpersonal Skills factor of the Consultation Effectiveness Scale (CES; Knoff, McKenna, & Riser, 1991), and demographic questions. Of these, 110 usable surveys were returned and analyzed.

Analyses showed the SCSS dataset contained outliers, was negatively skewed, had a peaked shape, and did not meet basic statistical assumptions. Caution is thus urged when interpreting results.

Coefficient alphas indicated very good internal consistency (i.e., emotional, .92; informational, .92; and instrumental, .90). Factor analytic results, however, showed that the data did not fit House's (1981) four-factor conceptualization; instead, EFA yielded three factors that represented emotional, informational, and instrumental support. Correlation coefficients between the CES and each factor were: emotional (.78), informational, (.59), and instrumental (.40). These correlations offered some support for the SCSS's criterion-related concurrent validity. Correlations between the CEF and each factor were: emotional (.47), informational (.26), and instrumental (.26) and did not support the construct validity of the SCSS.

Findings suggest that support within school consultation may be multi-dimensional and characterized by emotional, informational, and instrumental support. Furthermore, the SCSS may be a possible new instrument to study support within school consultation.

Development and Validation of a Measure of Social Support for School Consultation

by
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BIOGRAPHY

Melinda Denise Rupard was born in Mocksville, North Carolina. After graduating from Davie County High School she remained in North Carolina. Melinda enrolled at The University of North Carolina at Wilmington, where she received her Bachelor of Arts degree in Psychology in 1997. Then, she attended Wake Forest University in Winston-Salem, where she earned a Master of Arts degree in General Psychology in 2000. In 2001, Melinda began her doctoral training in School Psychology at North Carolina State University in Raleigh. She completed her pre-doctoral internship in Wake County and is currently employed as a School Psychologist in the Johnston County School System in North Carolina.

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Introduction

Consultation is a process whereby school psychologists not only can provide strategies to teachers for solving student problems but also help teachers to develop skills themselves to effectively solve and manage student issues. Consultees typically retain responsibility for strategy implementation and, during implementation, the consultant's role involves providing support and assistance. Consultation is generally recognized for its potential as a prevention strategy and its potential to create change at the organizational level (Brown, Pryzwansky, & Schulte, 2001).

Opportunities to engage in consultation in the school setting occur frequently. In fact, it has been reported that school psychologists spend approximately 20% of their time in consultation services, and that they would prefer an even greater percentage devoted to consultation (Fagan & Wise, 2000). Some advantages of consultation include that consultants can provide services to a greater number of clients through consultees, and interventions may be implemented more quickly relative to traditional special education services (Frank & Kratochwill, 2008; Zins & Erchul, 2002).

The demand for school consultation services has been increasing. This increase has been driven by legislation that requires students to be educated in the least restrictive environment and by the growing emphasis on the response-to-intervention approach for identifying students with learning disabilities (Erchul & Martens, 2002; Erchul & Sheridan, 2008). In addition, empirical investigations have shown encouraging results regarding the effectiveness of consultation for assisting teachers with educating students who have learning difficulties (Erchul & Sheridan). The increasing demand, combined with effectiveness of

consultation, suggests that consultation may become a bigger component of the school psychologist's role.

School consultation research has examined a number of factors that may influence outcomes of consultation (Gresham & Noell, 1993). These factors include characteristics of the consultant, consultee, consultation process, and environment. However, one factor that has not been examined systematically in relation to consultation outcomes is social support. This is surprising, given the historical link between consultation and social support and the extensive literature on the positive impact of social support across a number of mental, physical, and stress outcomes. The type of support and degree to which it is perceived by the consultee is likely to have an influence on consultation outcomes.

A preliminary step in conducting research assessing social support within the school consultation process is to accurately conceptualize, operationally define, and reliably and validly measure this construct. Relevant areas of inquiry to explore include Caplan's (1970, 1974) conceptualization of social support systems, consultation with an emphasis on school consultation, psychotherapy, the social support construct, social support's effects on health, social support theories and models, and social support measurement. Research findings in each of these areas are relevant to consider when developing a measure of support for use in school consultation. This dissertation reviews the relevant literature and then advances a research method for first developing, and then assessing, relevant psychometric properties of a new measure of social support specific to the school consultation process.

Review of the Literature

Overview

This dissertation investigates the role of social support within school consultation. School consultation research has increased greatly during the past 20 years; however, no studies have directly investigated the role of social support in school consultation. Thus, this dissertation research culminates in an experimental investigation based on the conceptual link between school consultation and social support. This review will cover relevant research in the areas of consultation and social support as well as the conceptual link between these two constructs. The first section of this review will present preliminary definitions of each construct as well as an overview of the conceptual link between them. In the second section, consultation will be described in depth. Within the consultation section, commonalties across various models will first be highlighted. This will be followed by a description of consultation models that have been most often associated with application to the school environment: the mental health consultation model and the behavioral consultation model. Weaknesses associated with each model will then be described, followed by a description of Erchul and Martens' (2002) integrated model of school consultation.

Erchul and Martens' (2002) integrated model of school consultation accounts for several weaknesses associated with previous consultation models that have been associated with a school environment. Strengths of the integrated model include empirical support for its effectiveness, specific processes, and an emphasis on consultee support and development. Given the strengths of this model, it was selected as the consultation model of focus for this research.

The consultation section will continue with an emphasis on the importance of interpersonal skills in the consultation process. The final section in the consultation description will provide a review of the effectiveness of school consultation.

Next, the role of social support in school consultation will be described. Caplan (1970, 1974) was the first author to form a conceptual link between social support and consultation and his influence on school consultation will be presented. Parallels between psychotherapy and consultation will be reviewed as well as similarities of the therapeutic bond across consultation and psychotherapy. Given that consultation and psychotherapy have some common elements, it can be reasoned that effects of social support that have been reported in the psychotherapy research may be extended to form hypotheses about the effects of support in consultation.

A social support construct section will follow the description of the role of social support in school consultation. This section will focus on research pertaining to the social support construct. Social support theory and models will first be described. Next, research on the positive effects of social support on physical health, well-being, and mental health will be described. Effects of social support have been found to vary depending on whether an objective or subjective measure of support was utilized. Research regarding effects of support on problem-solving tasks will be reviewed.

The final section of this review will focus on social support measurement. The importance of valid and reliable measures, common weaknesses of social support measures, and categories of support measures will be described. Two published measures of received support will then be reviewed.

Fundamental Concepts

This review begins with a presentation of definitions of school consultation and social support. In addition, the conceptual link between school consultation and social support is briefly described. School consultation is a process that occurs when a consultant (psychologist) works with a consultee (teacher) to develop and implement strategies to solve learning, behavioral, or adjustment difficulties of a client (student) in the classroom (Erchul & Martens, 2002). The dissertation research to be described is based on Erchul and Marten's integrated model of school consultation, and the conceptual link between school consultation and social support is an important variable in this research.

Social support has been conceptualized in a number of ways by various authors. For example, Cobb (1976) defined support as "information leading the subject to believe that he is cared for and loved, esteemed, and a member of a network of mutual obligations" (p. 300). Barrera, Sandler, and Ramsey (1981) provided a broader definition of support: tangible forms of assistance such as the provision of goods and services as well as intangible forms such as guidance and expressions of esteem. A number of other conceptualizations of social support exist in the literature. Broadly speaking, the term generally applies to the provision of care and esteem by others in tangible and/or intangible form.

Caplan (1970) was the first author to develop a conceptual link between consultation and social support. Caplan described consultation as one method that could be utilized by mental health professionals to promote levels of social support in the community. In addition, Caplan described the role of consultant social support in his mental health consultation model. In this model, the consultant is expected to provide the consultee with

support during the consultation process. Along these lines, Erchul and Martens (2002) included social support as an important component in their integrated model of school consultation.

Consultation

Although there are a variety of different approaches to consultation (Henning-Stout, 1993), there are underlying commonalities across the recognized models (Gutkin, 1996). Gutkin described four elements that are common to most, if not all, school based consultation models. For example, consultation is conceptualized as an indirect service model in which the consultant works with a consultee who delivers services to the client. A second commonality among models is the provision of services that are consistent with a two-fold goal. The first goal is to determine an effective solution to the immediate situation. The second goal is to improve the consultant's coping skills so that he or she will better be able to solve or prevent similar problems that might occur in the future. An additional common component is the problem-solving process. Consultation models generally outline specific stages or phases for developing solutions to presenting problems. A final commonality is that models of consultation necessitate the development of an interpersonal consultant-consultee relationship that is often described as collaborative, voluntary, and confidential.

Although consultation models have several shared elements, they vary regarding specific theoretical bases, descriptions, and approaches (West & Idol, 1987). The primary basis of consultation in schools developed from mental health consultation, behavioral consultation, and organizational consultation (Bramlett & Murphy, 1998). Of these, mental

health consultation (MHC) and behavioral consultation (BC) have been the two most often utilized by school psychologists (Bramlett & Murphy).

Mental Health Consultation

Gerald Caplan's approach to consultation has been referred to as mental health consultation (Brown et al., 2001). Caplan (1970) defined mental health consultation as a problem-solving process that occurs between two professionals where one (consultee) seeks help with a work-related problem that falls within the other's (consultant) area of expertise. The work-related problem typically revolves around a particular individual (client).

Caplan began early work in mental health consultation in 1949 at the Lasker Mental Hygiene and Child Guidance Center in Jerusalem, Israel. While there, he and his staff were faced with an overwhelming number of children who were referred for various emotional health issues. Caplan and his team began to visit the institutions where the children were housed and they began exchanging information with the caretakers. Through his observations of the beneficial effects of this system, Caplan began to form ideas for his mental health consultation model.

Mental health consultation is grounded in psychoanalytic theory (Bramlett & Murphy, 1998). One of the two major goals is to address the immediate problem by helping the consultee develop an understanding of personal thoughts and behaviors that may contribute to the immediate situation. The other goal is to improve the consultee's ability to effectively handle similar situations that may occur in the future (Caplan, 1970). Caplan described four areas of possible deficits within the consultee: (a) information and knowledge, (b) skill, (c) self-confidence, and (d) professional objectivity.

Brown and colleagues (2001) described the five stages of the mental health consultation model: (a) building a relationship with a consultee institution, (b) establishing relationships with consultees (c) assessing, (d) implementing an intervention, and (e) following-up and evaluating. Building a positive working relationship with the institution and consultees is an important initial step for developing consultation services. Caplan (1970) stated three goals of initial institutional visits: (a) developing positive relationships with administrators, (b) working in congruence with the institution's polices, and (c) developing an understanding of the working system at the organizational and social level. In addition, the consultant must work to establish a reputation of honesty, trustworthiness, and competency. The goal for stage two requires the development of a non-hierarchical coordinate working relationship between the consultant and consultee. In other words, the relationship should have equal status and power, and both parties must provide and accept information.

Further, and important to the aims of this dissertation, the consultant's role involves provision of emotional support, empathy, and understanding of feelings (Caplan, 1970). Caplan also specified the importance of the consultant role for addressing the consultee's anxiety in a productive manner. Thus, the consultant's role involves the provision of emotional and informational support (cognitive guidance) and the opportunity for the consultee to express his or her frustrations and anxiety regarding the work problems in a respectful, nonjudgmental relationship.

Behavioral Consultation

The development of behavioral consultation stemmed from research in behaviorism and social learning theory (Gutkin & Curtis, 1999). Behavioral consultation is influenced by the positivism approach to research, which reduces phenomena into its most basic, discrete parts for scientific investigation (Henning-Stout, 1993). The model was largely developed from writings by Bergan and Kratochwill (Bergan, 1977; Bergan & Kratochwill, 1990; Kratochwill & Bergan, 1990). This approach to consultation focuses on the interaction of organism, behavior, and environment (Gutkin & Curtis).

As with all consultation models, the goals of BC include producing a change in the client and the consultee. Client changes may include those that are behavioral and academic related, while consultee changes may include enhancement of knowledge, skill, confidence, and/or ability. Behavioral consultation may also focus on change at the organizational level, which may include communication or problem-solving skills (Kratochwill & Bergan, 1990).

There are four phases of the behavioral consultation model: (a) problem identification, (b) problem analysis, (c) treatment implementation, and (d) treatment evaluation (Kratochwill & Bergan, 1990). The goal of the problem identification phase is to specify and develop an operational definition of the problem(s). Problem analysis consists of identification of factors that may influence problem resolution and development of a plan to address the problem(s) specified in the first phase. In the third phase, treatment implementation, the consultee carries out the intervention plan and the consultant utilizes strategies to support treatment integrity. In the final phase, the effectiveness of the intervention is determined. If goals have been met, then the consultation may be terminated.

If goals are not met, however, participants may revert back to the second phase and cycle through the remaining ones.

Although these two models (i.e., MHC, BC) have been frequently referred to in the school psychology literature, several weaknesses have been documented concerning their application to school settings. For example, Erchul and Martens (2002) cited the psychodynamic approach, lack of specificity, and limited empirical support as weaknesses of the MHC model. Weaknesses of BC include the assumption that teachers rarely will be persuaded to change when provided with only solution-focused information, and the model's failure to place adequate emphasis on consultee support and development (Erchul & Martens).

Given the weaknesses associated with the traditional models of school consultation, Erchul and Martens (2002) developed an integrated model that combines the strengths of MHC and BC models. The integrated model outlines three consultation tasks and describes the nature of the consultant-consultee relationship.

Integrated Model of Consultation

The integrated model of school consultation (Erchul & Martens, 2002) is based on research across a number of disciplines, including crisis response, mental health consultation, behavioral consultation, social support, applied behavior analysis, social power, and interpersonal influence. As with most consultation models, the goals are two-fold and consist of developing a solution to the immediate problem and developing skills in the consultee to better deal with future problems of a similar nature. The consultant's role in this model is to assist the consultee through problem solving, social influence, and support. The

consultee role is to choose and implement appropriate intervention(s) for the problem situation.

Erchul and Martens (2002) defined consultation as it applies to the school setting:

> School consultation is a process for providing psychological and educational services in which a specialist (consultant) works cooperatively with a staff member (consultee) to improve the learning and adjustment of a student (client) or group of students. During face-to-face interactions, the consultant helps the consultee through systematic problem solving, social influence, and professional support. In turn, the consultee helps the client(s) through selecting and implementing effective school-based interventions. In all cases, school consultation serves a remedial function and has the potential to serve a preventive function. (pp. 13 – 14)

As noted, Erchul and Martens's (2002) model consists of three interrelated tasks: (a) problem solving, (b) social influence, and (c) support and development. Each task is dependent on the others. The effectiveness of the problem-solving task depends in part on the social influence task and, in many cases, the support task. For example, a consultant might suggest the use of a daily self-monitoring chart for a student's out-of-seat behavior. A resistant teacher may "forget" to provide the student with a new monitoring sheet at the beginning of each school day. The consultant may respond by providing pre-made monitoring sheets directly to the student each morning (instrumental support) and compliment the teacher when he or she collects each sheet at the end of the day (social influence). An additional important component in this model is the consultant-consultee working relationship, which is characterized by cooperation, voluntary consultee participation, confidentiality, and social influence.

The problem-solving task of this model derives directly from principles of BC. The process is based on a format that progresses through four stages: (a) problem identification

interview, (b) problem analysis interview, (c) intervention implementation, (d) problem evaluation interview. Each stage consists of specific goals focused on defining the problem, planning an intervention, implementing the intervention, and determining the effectiveness of the intervention.

The social influence task is the next component of Erchul and Martens' (2002) integrated model. The consultation process requires that the consultee gain knowledge, skills and often modify his or her own behavior in order to benefit the client. In other words, consultees are often required to change their own behavior to solve the problem. In many cases, consultees may be resistant to these types of changes (Tingstrom, Little, & Stewart, 1990). One way that the consultant acts to accomplish the goals of consultation is through the exercise of social influence. The social influence task of the integrated consultation model focuses on the use of strategies to influence consultee perceptions to promote consultee change (Erchul & Martens, 2002). This component of the model is necessary to achieve the goal of altering the behavior and attitudes of the consultee.

The support and development task is the final component of the model. The support and development task stems from Caplan's ideas of the importance of support during a time of crisis. Caplan (1970) stated that the effectiveness of consultation is mediated by the interpersonal relationship between the consultant and consultee. Within MHC, the consultant's role includes provision of emotional support and problem-solving guidance. Consultant empathy and affective response toward the consultee's expression of distress about the case are also emphasized by MHC. Erchul and Martens (2002) added that any supportive attempts would likely have a beneficial effect for teachers.

Caplan's concept of the importance of the interpersonal relationship to effective consultation has been extended recently by others. For example, Brown et al. (2001) described the consultation relationship as egalitarian in nature and characterized it as being open, warm, and genuine. Brown et al. emphasized the importance of this relationship for promoting consultee change. Further support stems from Carkhuff's (1983) model of general helping relationships. According to this model, provision of information is not sufficient to promote change within a helping relationship. Instead, certain conditions must be established before change will occur. The helping professional must have certain interpersonal skills to facilitate change. These skills include responsive skills (e.g., empathy, warmth, respect, concreteness) and initiating skills (e.g., advanced levels of empathy, genuineness, self-disclosure, confrontation, immediacy).

Although no studies have directly examined the effects of social support behaviors on school consultation process or outcome, a few have considered the relationship's impact on teacher satisfaction and perceptions. For example, Maitland, Fine, and Tracy (1985) reported that the consultant's facilitative interpersonal skills were significantly associated with teacher satisfaction (r = .56), teacher perception that the problem was being resolved (r = .52), and professional growth (r = .43). Also, Horton and Brown (1990) reviewed studies regarding consultants' interpersonal skills. Overall results showed that when conditions of empathy, warmth, and positive regard are perceived, consultees report higher satisfaction, report experiencing professional growth, and make advances toward problem resolution.

Hughes and DeForest (1993) examined the relationship between consultants' supportive verbalizations and consultee perceptions of consultant effectiveness. Audiotaped

consultation interviews were coded with regard to whether statements were supportive, non-supportive, or neither. Following termination of the consultation situation, consultees completed the Consultant Evaluation Form (CEF; Erchul, 1987), which assesses perceived consultant effectiveness. Results showed that consultants who provided more verbally supportive messages were rated by consultees as more effective.

In sum, only a few studies have investigated the relationship between social support and school consultation outcomes or processes. Results of these studies suggest that support has a positive impact on consultee reported satisfaction, consultee progress toward problem resolution, and consultee perception of consultant effectiveness. Clearly, further research is needed to replicate and extend these findings.

School consultation research has examined the influence of a variety of factors on the consultation outcome as well as the overall effectiveness of consultation. In the next section, typical research paradigms for school consultation research will be described and research on the effectiveness and efficacy of school consultation will be reviewed.

Empirical Support for School Consultation

Consultation research designs typically are based on group experimental designs, single-case experimental designs, and case study designs. Consultation research usually comprises univariate, nonexperimental designs and often involves comparing a single outcome measure across two different consultation methods (Gresham & Noell, 1993). Variables that have been found to influence consultation outcome include consultant variables (e.g., level of training, experience, theoretical orientation); consultee variables (e.g., level of training, experience, classroom management style); client variables (e.g., age, grade,

gender); consultation plan variables (e. g., acceptability, time commitment, type of treatment); and ecological variables (e.g., classroom variables, school variables) (Gresham & Kendell, 1987).

Several key reviews have documented outcome effects of school consultation within the past 20 years (Busse, Kratochwill, & Elliott, 1995; Medway & Updyke, 1985; Sheridan, Welch, & Orme, 1996; West & Idol, 1987). Overall findings from these critiques are encouraging as positive changes generally have been reported. For example, the meta-analytic study by Medway and Updyke reported 192 outcomes across 54 studies. Outcome data were gathered using measures of attitude, behavior, and achievement. Results were also reported by source of the data (consultant, consultee, client), and multiple outcomes were reported for several studies. Analysis based on the 192 outcomes resulted in a mean *ES* of .47. Medway and Updyke also calculated a mean *ES* based on the overall (average) *ES* of each study. The *ES* based on the 54 study means was .71. Effect sizes were also calculated based on the source who reported outcome data. Thus, *ESs* were calculated separately for data provided by consultants, consultees, and clients. These findings showed that consultant measures resulted in an *ES* of .62, consultee measures resulted in an *ES* of .55, and client measures showed an *ES* of .39. A more recent meta-analysis examined single-case behavioral consultation outcomes (Busse et al., 1995). Findings from this study yielded a mean *ES* of .95, with the majority of case outcomes showing improvement. Taken together, the cumulative findings of meta-analytic studies of consultation outcome indicate positive effects.

Finally, Sheridan et al. (1996) reviewed and critiqued published articles from 1985-1995 that dealt with consultation outcome studies. General findings showed a positive effect for 76% of the studies reviewed. These results are consistent with previous reviews of consultation effectiveness (Mannino & Shore, 1975; Medway, 1979). For example, Mannino and Shore reviewed 35 consultation outcome studies that were published between 1958 and 1972. Results of this review showed positive changes occurring for 74% of consultees and 58% of clients. Medway reviewed consultation outcomes studies that were published between 1972 and 1977, and positive outcomes were reported in 78% of the studies reviewed.

Although research shows positive effects of school consultation, researchers have consistently reported a number of methodological flaws of empirical research studies that limit conclusions regarding efficacy (Fuchs, Fuchs, Dulan, Roberts, & Fernstrom, 1992; Gutkin, 1993; Sheridan et al., 1996). Lewis and Newcomer (2002) described a number of difficulties found in school consultation efficacy research, including the diversity in presenting problems, variation across consultation models, and tendency for poor treatment integrity. In addition, Lewis and Newcomer reported that "the integrity of consultation procedures and behavioral interventions are central to treatment efficacy, yet a major barrier to effectiveness in consultation is loss of integrity in implementation" (p. 170). Supporting evidence for this statement comes from studies that have shown low levels of treatment integrity (e.g., Jones, Wickstrom, & Friman, 1997; Noell & Witt, 1996). Thus, in contrast to earlier meta-analyses, Lewis and Newcomer concluded that the available research literature has shown little evidence as to the efficacy of school consultation. In sum, empirical

evidence suggests the effectiveness of school consultation on facilitating change in consultee and client outcomes. However, conclusions regarding effectiveness should be interpreted with caution due to methodological weaknesses in school consultation efficacy research.

This dissertation is an exploratory investigation of a measure of consultant social support provided for the consultee during the school consultation process. Given the exploratory nature of this research, it is important to clarify its conceptual underpinnings. The link between consultation and social support has been briefly highlighted in previous sections of this review, and the next section will provide an in-depth description of this relationship.

The Conceptual Link between Consultation and Social Support

Caplan (1970) developed an early model of consultation, the mental health consultation (MHC) model, which was described earlier in this review. The role of social support within this model will be presented next. Although mental health consultation is not the model selected for this dissertation research, it is important because, to some extent, it has influenced all other consultation models (Erchul & Martens, 2002), including Erchul and Martens' (2002) integrated model of school consultation.

Caplan (1970) provided a detailed description of the MHC model and the professional relationship that occurs between the consultant and the consultee. One important component of the consultant-consultee relationship is the provision of emotional support by the consultant to the consultee. Caplan described the role of the consultee as one of dependence on the consultant, such that the consultant provides "emotional support and cognitive guidance" (p. 80) to the consultee in order to increase his or her knowledge of mental health

issues. According to Caplan, in MHC, both participants benefit from "mutual emotional support" that results from working together to achieve a common goal. Caplan further stated that as the consultation progresses, the consultee gains a greater understanding of the case while simultaneously, he or she experiences a feeling of support that results from consultant working cooperatively with him or her in a combined effort to develop an understanding of the case.

Caplan noted two possible mechanisms/roles of support in consultation. In his earlier writings, Caplan (1970) characterized support as a passive, by-product of consultation that functions to benefit the consultant's feelings of accomplishment and cognitive clarity. Caplan reasoned that the feeling of consultee support results from the consultant working actively with the consultee in a combined effort to understand the work-related problem. Caplan further reasoned that this process offers the consultee expert help while simultaneously emphasizing the consultee's own specialized professional role and the importance of his contribution to the consultation process upon which an understanding of the case is developed. The result is improved professional and personal consultee self-respect. This type of support that should be provided by the consultant is most closely related to assisting someone with problem solving or task completion.

Some years later, Caplan (1993) described consultant social support as a more active process. This later description of consultant support is most closely related to emotional support that results in a feeling of comfort, safety, and respect for the individual. Caplan (1993) described the role of the consultant as providing support for the consultee to feel safe enough to deal with emotionally sensitive issues that are related to the client (i.e., a work

issue). According to Caplan, emotional arousal interferes with normal cognitive operations, thus preventing rational problem solving. The role of the consultant is to provide emotional support for the consultee to express concerns and be able to regain cognitive objectivity. Although this is a psychoanalytic interpretation, it also can be interpreted to mean that, at some level, the consultant should consider himself or herself responsible for addressing the consultee's emotional discord.

Caplan's (1970, 1993) descriptions of social support appear to have changed over time. Specifically, at some point, it seems that support has encompassed two related but separate meanings. The idea of multiple meanings of support foreshadows later research on social support that conceptualizes social support as a multi-dimensional construct. Regardless of the nature of the support, Caplan (1974) characterized supportive relationships as consisting of three key elements: (a) the provision of help for the individual to mobilize his or her psychological resources and manage emotional burdens; (b) sharing of his or her tasks; and (c) the provision of extra supplies of money, materials, tools, skills, and cognitive guidance to improve his or her ability to manage difficult or stressful situations. Overall, social support as characterized by Caplan involves the provision of assistance to an individual that improves his or her ability to manage stress.

Regardless of the specific meaning of support, no empirical data have been reported to date regarding the effectiveness or importance of social support to MHC. Descriptions of its effectiveness seem to have been primarily based on research in related fields of the importance of support (e.g., Cassel, 1976) and clinical observations (e.g., Caplan's early

work at Lasker Mental Hygiene and Child Guidance Center of Hadassah in Jerusalem in 1949).

Erchul and Marten's (2002) integrated model of school consultation was introduced earlier in this review. As noted, this model consists of three interrelated tasks of consultation, which are problem solving, social influence, and support and development. To date, no research has directly investigated the role of social support in school consultation. According to Erchul and Martens, the consultant typically provides instrumental support (i.e., tangible support) in the form of supplying the consultee with information to assist in the development of solutions to work-related problems. In cases where the consultee lacks the skills needed, the consultant guides the consultee to acquire a better understanding of the relevant issues involved. Additionally, instrumental support is evident in the consultant's guidance of the consultee through the steps of the problem-solving task (Erchul & Martens).

Emotional support in the integrated model is indirectly provided by the creation of a safe, nonjudgmental relationship in which the consultee is able to express his or her concerns and difficulties with a work-related problem (Erchul & Martens, 2002). Additionally, emotional support is provided in the case that the consultee appears to lack confidence or is emotionally distraught by the case (Caplan, 1970). In this type of situation, the consultant provides what Caplan refers to as "ego support" (p. 88). Caplan described this type of support as a joint effort of problem solving combined with expressions of concern and sympathy. Erchul and Martens (2002) have interpreted this concept as the provision of basic support and encouragement to the consultee. Through the use of this process, the consultee's anxiety and stress associated the case is reduced (Caplan).

The role of social support in consultation has in part been based on observational and empirical research rooted in related areas of research such as social support (Cassell, 1976), mental health consultation (Caplan, 1970), helping relationships (Carkhuff, 1983), interpersonal skills (Brown et al., 2001; Maitland et al., 1985), and social support systems (Caplan, 1974, 1976). To date, no research has directly examined the importance of social support within the school consultation literature (Erchul & Martens, 2002).

Due to the lack of direct empirical research regarding the role of social support in school consultation, empirical research on the impact of support in related areas of psychology will be examined. Research on the affect of social support across a wide variety of contexts indicates that it has a robust, consistent, beneficial influence on individuals experiencing stress and/or difficult situations. It can be reasoned that support may have a similar positive influence on consultee and client outcomes in school consultation. The therapist-client relationship that occurs in psychotherapy has some parallels to the consultant-consultee relationship in consultation, and the psychotherapy literature has investigated the role of support in the therapist-client relationship. Given the parallels between these two types of helping relationships, results from research on the role of support in the psychotherapy literature may provide some basis for developing hypotheses as to the role of support in consultation. The next section describes the relevance of psychotherapy to school consultation and social support.

Psychotherapy

Social support has been found to have an important impact on client outcomes in psychotherapy. This finding is relevant to consultation in that the consultation and

psychotherapy process have several parallels (e.g., therapeutic operations, therapeutic bond, sequential flow). Therefore, it can be reasoned that factors that have been shown to influence the psychotherapeutic process may also influence the consultation process. The next section will explore commonalities of consultation and the therapeutic process. Psychotherapy effectiveness and importance of the therapeutic bond and support will be highlighted.

Parallels to Consultation

Orlinsky, Grawe, and Parks (1994) identified six process variables that are generally found in all forms of therapy. These processes are: (a) therapeutic contract, (b) therapeutic operations, (c) therapeutic bond, (d) self-relatedness, (e) in-session impact, and (f) sequential flow. The *therapeutic contract* is the agreement of the conditions under which therapy will take place and the roles of client and therapist. *Therapeutic operations* refer to the technical operations that the therapist and client engage in. *Therapeutic bond* is the interpersonal relationship that develops as a result of engaging in therapy. *Self-relatedness* describes the ways that clients as well as therapists experience and react to emotions, insights, desires, and intentions. *In-session impacts* are results of therapeutic operations that occur and may involve insights, hope, improved self-efficacy, etc. *Sequential flow* refers to orderly nature of developments across sessions and the time-limited nature of the therapeutic process.

Psychotherapy and consultation processes share several similarities (Coghlan & Mcllduff, 1995; Davis & Hartsough, 1992; Newman, 1993). Among the similarities, both processes rely on a working contract that generally specifies each party's role, an estimate of time engaged in sessions, and overall goals. Another commonality is that at least one goal is to improve the client's circumstances or situation by principles of behavior change. Both

processes necessitate the development of an interpersonal relationship that is characterized by empathy, warmth, and support. The relationship is described as collaborative, voluntary, and confidential in nature. Both are time limited, have specific outcome goals, and are process-oriented. Various schools and approaches are found in both areas. Empirical evidence has established the effectiveness of consultation and psychotherapy (Lambert & Bergin, 1994; Wills 1982). Finally, in both processes, the psychologist assumes a facilitative, expert role.

There are also a few differences between psychotherapy and consultation. For example, psychotherapy generally targets solely the client for behavior and/or cognitive change. In contrast, the goal of consultation is two-fold in that the aim is to promote change in the consultee, who will then promote change in the client. Thus, consultation targets the client and the consultee, while psychotherapy targets only the client. Another difference is the type of helping model that is utilized in psychotherapy and consultation. Psychotherapy promotes change for the client by means of a direct helping model, while consultation promotes change for the client by an indirect pathway (through the consultee). A final difference is the role of the individual who interacts with the psychologist/consultant. In psychotherapy, the role of the client is not necessarily viewed as an expert one. However, in consultation, the consultee is considered an expert in his or her field and is expected to contribute relevant and critical information to the process.

Importance of the Therapeutic Bond

A variety of conceptualizations and terms of the therapeutic bond have been reported (Bordin, 1979; Greenson, 1965; Luborsky, 1976). Martin, Garsky, and Davis (2000)

reviewed conceptualizations of the therapeutic bond (i.e., interpersonal relationship) and reported three common themes: (a) collaborative nature of the therapist-client relationship, (b) therapist-client affective bond, and (c) therapist-client agreement on treatment goals and tasks. The components of the therapeutic alliance are considered to be necessary for client change to take place (Greenberg & Pinsof, 1986).

The therapist-client relationship that occurs in psychotherapy has some commonalities with the consultant-consultee relationship that occurs in consultation. Both are a type of helping relationship where a problem-solving process takes place in order to reach a goal. Empirical research investigating the importance of this bond is less well developed in the consultation literature. Therefore, research that has been conducted regarding the importance of the interpersonal relationship between therapist and client will next be described, with the intent of providing a basis for the importance of the interpersonal relationship that occurs in consultation.

There is a general consensus throughout the psychotherapy literature that the quality of the client-therapist relationship has a central role in the change process (Beutler, Machado, & Neufeldt, 1994; Martin et al., 2000). In his conclusion, Patterson (1984) indicated that the relationship between therapeutic bond and outcomes was a strong one that necessarily included empathy, respect, warmth, and genuineness. Horvath and Symonds (1991) and Martin et al. (2000) reported meta-analytic reviews of the alliance literature and findings showed a consistent, albeit moderate association (ES = .26, ES = .22, respectively) between alliance and therapeutic outcome. In addition, this relationship remains consistent across various schools and various measurement instruments and designs (Beutler et al.). Qualities

of the alliance may be equated to some aspects of the consultant-consultee relationship and social support. For example, Caplan (1970) and Erchul and Martens (2002) described the importance of consultant respect, empathy, expressions of concern, and a nonjudgmental attitude toward the consultee in consultation. When extended to the school consultation model, these results suggest a significant association between these aspects of the consultant-consultee relationship and consultation outcome.

Relevance of Social Support to Psychotherapy

The specific components that make up the therapeutic relationship seldom have been addressed in the psychotherapy literature. Bachelor and Horvath (1999) stated that there was little consensus regarding the specific definitional components of the therapeutic relationship, although there is general agreement as to the basic components of working alliance and the collaboration of client and therapist. Although social support has not frequently been included as an important component, Milne (1999) reported that the emotional bond and agreement on goals are synonymous with the "provision of emotional, informational and practical social support" (p. 106). According to Caplan (1970), consultee support is in part, a result of the provision of emotional support and the process of working jointly with the consultant to solve a problem. Thus, it can be reasoned that some commonalities exist between conceptualization of the therapeutic bond and the concept of consultant-consultee relationship. As reported earlier in this review, several authors have offered strong evidence for the importance of the quality of the therapeutic relationship as an influential component in therapy outcome (Bachelor & Horvath).

Empirical evidence has suggested that support influences the therapeutic process. Orlinsky et al. (1994) compiled research regarding the contributions of a number of component processes and reported effect sizes for each individual study. Support (i.e., encouragement, reassurance, assistance) was included as a component variable. Findings showed effect sizes that ranged from .00 to .53. Support was significantly, positively related to outcomes for six out of the nine studies reviewed, and two studies reported *ESs* above .40.

Overall, few researchers have investigated the relationship of the subcomponents of the therapeutic relationship on client outcomes. Of the studies that included social support as a variable, inconsistent strengths of the relationship that ranged from zero to moderate (.53) were reported (Orlinsky et al., 1994). However, some researchers have indicated that social support has a positive impact on outcomes in psychotherapy (Winefield, 1987) and, taken together, results provide some evidence for this conclusion.

Given the parallels between psychotherapy and consultation, findings from the former body of literature can be used as a basis for formulating hypotheses for the latter. In other words, findings from psychotherapy indicate the importance of the therapist-client bond and to a lesser extent, the positive influence of support; therefore, it is reasonable to suggest that support may have a beneficial effect on consultation processes and outcomes.

Evidence documenting the association between social support and positive outcomes in psychotherapy indicate the positive influence of support on client outcomes. Additional evidence for the beneficial affect of support can be found in the social support literature. This purpose of this review is to stimulate research on the role of support in Erchul and Martens' (2002) model of school consultation. Given that this topic has not previously been

explored in the literature, this review has attempted to bridge relevant research from the consultation, psychotherapy, and social support literature.

The following section will provide an overview and summary of related research in the social support literature. The importance of support as a potential intervention for reducing teacher occupational stress will be described. This is important given that school consultation typically involves teachers as consultees. The conceptualization of social support selected for this research will then be reviewed. The definition of the types of support described by House (1981) will be compared to the role of support in MHC model and Erchul and Marten's (2002) model of integrated school consultation. Next, social support theory and models will be described. After that, a summary of the literature that has documented the beneficial, buffering, protective factor associated with the provision of social support will be provided. Only a couple of empirical investigations have documented the effect of support on cognitive problem solving tasks and results of these studies will be described. Finally, social support measurement will be reviewed.

Social Support Overview

Importance of Social Support to Psychological Research

One of the strengths of social support as a construct is that it has been shown to have effects across a variety of contexts. For example, researchers have reported positive relationships between perceived social support and well-being (Bisconti & Bergeman, 1999; Carpenter, 2002), mental health (Bovier, Chamot, & Perneger, 2004; Levy, 1983), client outcomes in counseling relationships (Pearson, 1990), and physical health (Orth-Gomer,

1994). In addition, positive social support has been associated with better adherence to prescribed medical regimes (Stewart, 1993).

Another strength of the social support construct is that it can potentially be manipulated and applied in a constructive manner by teachers, psychologists, therapists, and other helping professionals. Researchers have determined that, in general, having positive social support is beneficial for individuals in a variety of settings. Social support can be incorporated into therapeutic relationships to further enhance positive outcomes for individuals. Social support can also be provided by health care professionals (e.g., nurses) to improve outcome, recovery, and health care for patients (Stewart, 1993).

Additionally, the social support construct holds promise for interventions in that individuals can be taught strategies for initiating, developing, and maintaining a positive social support network (Turner & Turner, 1999). For example, individuals can be taught social skills that can lead to more positive interactions with others who can provide social support. Individuals who report concern over having small social support networks can be encouraged to increase network size by joining local organizations or clubs. Additionally, individuals who perceive little social support from their network members can be taught skills for eliciting social support (Turner & Turner).

Overall, support is viewed as a protective factor within the support and psychology literature. The benefit of social support may be especially relevant to those who experience stress on a daily basis. As many researchers consider teaching a high stress occupation, a brief description of studies of teacher work-related stress will be presented next.

Importance of Social Support to Teacher Work-Related Stress

Teachers have reported experiencing high levels of work-related stress (Johnson et al., 2005; Littrell, Billingsley, & Cross, 1994). Special education teachers may be especially at risk for experiencing job-related stress (Fore, Martin, & Bender, 2002; Nelson, Maculan, Roberts, & Ohlund, 2001). Teacher stress has been defined as "the experience by a teacher of unpleasant, negative emotions, such as anger, anxiety, tension, frustration or depression, resulting from some aspect of their work" (Kyriacou, 2001, p. 28). Research has suggested that a supportive working environment that includes support availability to help problem solve and make management decisions based on consultation may help reduce teacher stress (Kyriacou). The consultation process provides a one-on-one opportunity in which a consultant can provide a teacher with support that may function to alleviate feelings of stress.

As stated previously, support is viewed as a protective factor within the support and psychology literature. However, differences exist in the literature as to the conceptualization and interpretation of the meaning of social support. In the next section, a comprehensive definition of support will be detailed.

Social Support Conceptualized

Social support has been defined and measured in a variety of ways (Barrera, 2000; Cohen, Gottlieb, & Underwood, 2000; Turner, 1999; Veiel & Baumann, 1992). The literature abounds with differences in meanings and operational definitions. The varied operationalizations of social support are due to multiple interpretations of the concept (Tardy, 1985). Tardy described a conceptualization of support that has been cited widely by

researchers in the field. His comprehensive approach to support conceptualization includes (a) direction, (b) disposition, (c) description/evaluation, (d) content, and (e) network.

Direction refers to whether support is received by or provided by a particular individual. Within school consultation, social support is generally given by the consultant (school psychologist) to the consultee (teacher). The purpose of the present study is to create and validate an instrument that assesses social support primarily from the view of the consultee. Therefore, in this context, direction will be considered to be perceived social support from the perspective of the consultee.

The second component that Tardy (1985) indicated as important is *disposition*. This term refers to the social support that a respondent views as being available to him/her when needed (availability) compared to the social support that the respondent seeks out and elicits (enacted). Relatedly, within the Erchul and Martens' (2002) integrated model of school consultation, one of the consultant's tasks is to provide support to the consultee.

The third component of Tardy's (1985) definition is the respondents' *description* of the social support versus his or her *evaluation* (satisfaction level) of the support received. These components are considered to be distinct parts of social support. Along those lines, the intent of this research was to develop a measure of social support that will tap both descriptive and evaluative responses in terms of received social support.

A fourth component Tardy (1985) recommended addressing is the *content* (type) of social support received. Tardy stated that supportive acts vary from one situation to the next. Thus, what constitutes a supportive act should be clarified in support research. Content has also been referred to as function of support (Wills & Shinar, 2000). Wills and Shinar stated

it is assumed that there are different types of supportive functions provided through social relationships, and it is posited that these functions may be differentially useful for various types of problems or stressors.

Tardy (1985) suggested that the most "useful" descriptors of social support content stems from House's (1981) publication on social support and work stress (p. 189). House reviewed several published typologies of support and found four common types of support: (a) emotional, (b) instrumental, (c) informational, and (d) appraisal. *Emotional* support is defined as the provision of empathy, caring, love, and trust. This is the type of support that most people think about when asked about supportive behaviors and appears to be the most important type. *Instrumental* support is practical help, such as assistance with transportation, help with household chores and child care, and providing tangible aid such as lending money. This type of support is most easily distinguished from the other types of support. *Informational* support is described as providing knowledge that is useful for coping and for solving problems, such as information about resources and services, advice, and guidance. *Appraisal* support is similar to informational support in that it consists of providing one with information. The difference is that appraisal support specifically refers to information that is relevant to self-evaluation. Appraisal support can be explicit or implicit. House described an example in which a work supervisor either directly tells a worker that he or she is doing a good or bad job (explicit) or describes the work patterns of a good employee leaving the worker to make his or her own evaluation (implicit).

Each of these types of social support may have relevance within the school consultation process. For example, emotional support likely comprises non-judgmental

listening by the consultant. Instrumental support may come into play if the consultant provides materials for the consultee, such as a behavior monitoring chart or a homework contract for the client. Informational support corresponds to describing local resources such as teacher support groups. Appraisal support pertains to providing evaluative feedback regarding the consultee's performance of his or her tasks. Further, each type may have a varying degree of relevance when considered across each stage of the consultation process. For example, informational support may have greater relevance for the first two stages of consultation. Appraisal support may have greater relevance for the last two stages of treatment implementation and treatment evaluation.

House's (1981) types of support relate to Erchul and Martens' (2002) model of school consultation. Erchul and Martens describe two types of support that are relevant to the integrated model of school consultation. These types were described earlier in this review. Briefly, according to Erchul and Martens, the consultant provides instrumental support (i.e., tangible support) in the form of supplying the consultee with information to assist in the development of solutions to work-related problems. In cases where the consultee lacks skills needed, the consultant guides the consultee to acquire a better understanding of the relevant issues involved. Additionally, instrumental support is evident in the consultant's guidance of the consultee through the steps of the problem-solving task (Erchul & Martens). This description of support most closely parallel's House's description of instrumental support.

Emotional support in the integrated model is indirectly provided by the creation of a safe, nonjudgmental relationship in which the consultee is able to express his or her concerns and difficulties with a work problem (Erchul & Martens, 2002). Additionally, emotional

support is provided in the case that the consultee appears to lack confidence or is emotionally distraught by the case (Caplan, 1970). In this type of situation, the consultant provides what Caplan refers to as "ego support" (p. 88). Erchul and Martens (2002) have interpreted this as the provision of basic support and encouragement to the consultee. This description of support most closely parallels House's (1981) description of emotional support.

The usefulness of instrumental and emotional support with regard to school consultation seems clear, with the other two a little less clear. Given the influence of House's model within the social support literature and the exploratory nature of this proposed research, each of his types of support are considered in this research. Given the clear emphasis on social support in this research, the underlying theory and models of support will be reviewed next.

Social Support Theory and Models

Although numerous studies have shown a consistent and strong positive relationship between support and health outcomes, few studies have clarified the theoretical foundation of this relationship. Theoretical writings regarding the effects of support are scarce and the literature is marked by debates. Gottlieb (1992) concluded that the social support literature fails to explicate any theoretical notions that could be applied to intervention development. Factors that have contributed to confusion in this literature include a lack of consensus regarding the social support construct (Heller & Rook, 1997) and the frequent use of inadequate support measures. The literature has largely developed from a descriptive basis (Heller & Rook), and early research was not theoretically driven (Cohen & Wills, 1985;

Thoits, 1982). Although the literature lacks a sound theoretical clarification or consensus, several useful perspectives and models have been described.

Traditional Theory

The traditional theories of support make the assumption that perceived support accurately reflects the actual support that is received and that actual support directly influences the coping process (Lakey & Drew, 1997). Multiple studies have since shown the inadequacy of this over-simplified theory of support and health (Pierce et al., 1997). More recent theories take into account the discrepancy that typically occurs between effects of perceived and actual support. Many of the presently accepted models (e.g., intrapersonal perspective, social constructionist perspective, stress and coping theory) acknowledge the potential impact of intrapersonal influences on perceptions of support.

Intrapersonal Perspective

One theoretical perspective that has gained recent attention in the literature is based on research regarding the perception of support. This perspective views support as a stable, intrapersonal variable that functions similarly to any other personality variable in that it influences the individual's view of the world (Pierce et al., 1997; Sarason, Pierce et al., 1990). Research results support this view. For example, participants who differ in levels of perceived support tend to differ on other personality variables such as social skills, coping styles, and neuroticism. In addition, test-retest correlations have shown a stable perception of support across time (Pierce et al.). Proponents of this perspective view support as a stable personality trait (Rook & Underwood, 2000). In effect, any support measure that depends on self-report may correspond with intraperson support variables.

Stress and Coping Theory

The stress and coping perspective is the most influential perspective in the social support literature (Lakey & Cohen, 2000). This theory hypothesizes that social support exerts a beneficial effect during times of stress by a direct (supportive actions of others) or indirect (the belief that support is available if needed) mechanism. Lakey and Cohen concluded that measures of perceived support are the most appropriate for hypothesis testing based on this theoretical perspective.

The stress and coping perspective posits that support functions to reduce the negative effects of stress through either the supportive actions of others (e.g., advice, reassurance) or the belief that support is available (Lakey & Cohen, 2000). Actions are hypothesized to improve coping efforts while perceptions of available support influence appraisals of stressful events so that they seem less threatening. Studies of effects of supportive actions are best conducted with measures of received support due to its emphasis on actual assistance provided to another (Lakey & Cohen).

Social Constructionist Perspective

This perspective is based on the assumption that individuals are closely linked to their social world and social network (Lakey & Cohen, 2000). It is derived from social cognition research, which holds that support exerts its effect through the social network by regularization of behavior. Individuals learn appropriate, safe behaviors based on the behavior of members of their social group. Measures of perceived support are most often utilized with this line of research (Lakey & Cohen).

In summary, theoretical perspectives that link social support to health are quite limited. Furthermore, most studies of social support have failed to specify a theoretical basis. In contrast, researchers have been more active with regard to conceptual models of social support and health benefits. In particular, there has been debate over the importance of the main effect versus the stress-buffering models of support.

Main Effect Model

The main effect model suggests that support has a generalized beneficial effect where social networks provide positive experiences, stability, and rewards for its members (Cohen & Wills, 1985). On the individual level, this support results in a sense of well-being and generalized positive affect. In addition, social interaction may protect one from negative experiences such as economic strain and engagement in risky behavior. The main effect model posits that social resources have a beneficial effect regardless of whether a person is experiencing low or high levels of stress. Support for this model comes from results that show a statistical main effect of support on outcomes without a significant interaction effect (Cohen & Wills). Evidence for this model has primarily been found with measures of network support (House et al., 1988)

Stress-Buffering Model

The stress-buffering model posits that support is related to well-being primarily for those who experience stress (Cohen & Wills, 1985). This model stems from the stress and coping theory, which holds that support buffers or protects individuals from the potentially negative influence of stressful situations (Cohen & Wills; Thoits, 1982). The mechanism by which social support functions as a buffer is thought to be through the supportive behaviors

of others or through the belief that support will be available if needed (Lakey & Cohen, 2000). According to this model, persons with a strong support system should be better able to cope with stressful experiences than those with weak support systems. A useful aspect of this theoretical approach is that the function of social support can be examined with regard to particular situations and problems (Wills & Shinar, 2000). This perspective corresponds to writings by Cassel (1976), Cobb (1976), and Caplan (1970), who emphasized buffering effects.

The buffering effect is thought to have two possible pathways: cognitive and/or behavioral (Cohen & Wills, 1985; Thoits, 1982). In the cognitive pathway, support functions by influencing the appraisal of a situation, thereby reducing the perceived threat or by increasing the person's perceived ability to cope with the threat. Alternatively, according to the behavioral mechanism, support may intervene between the appraisal of stress and the onset of negative outcomes. Others may provide solutions to problems, reducing the perceived importance of the problem or improving stress-reducing behaviors (House, Umberson, & Landis, 1981).

Proponents of the stress-buffering model point out that the model does not imply that supportive functions will fail to have an impact during times of low or no stress (Wills & Shinar, 2000). In fact, studies have shown support to be related to health indices across a range of stress levels. The model does suggest that supportive functions will have a greater impact on individuals who are experiencing stressful events (Wills & Shinar). Support for the buffering hypothesis has primarily been found with measures of perceived support (House, Umberson, et al., 1988). Although there has been debate pitting the main effect model

against the stress-buffering model (Turner & Turner, 1999), currently there is some consensus regarding the contribution of both models to research (Cutrona & Russell, 1990; House, Umberson, et al., 1988; Wills & Shinar).

Cutrona and Russell (1990) proposed a model of optimal matching of support and stress. This model was based on theoretical and empirical research in the area of coping and is an extension of the stress-buffering model. The model suggests that effectiveness of support for alleviating stress depends on the fit between support dimension and the nature of the stress situation. For example, monetary assistance (instrumental support) would be most effective for someone who was unemployed. Provision of sympathetic listening (emotional support) would be effective for someone who lost a loved one. Some types of support are hypothesized to be applicable to almost every situation (Cutrona & Russell). Cohen and Wills (1985) have stated that informational and esteem support (i.e., information that a person is highly regarded and accepted) are two such dimensions.

Both the main effect model and stress buffering model view support as a protective factor. According to both models, support has an effect regardless of whether an individual has low or high levels of support. However, the stress-buffering model posits that support primarily functions or has the greatest beneficial effects during times of high stress. The mechanism for the main effect model is that support promotes a general sense of well-being and positive affect, which functions to protect the individual from life stress. According to the stress-buffering model, support functions by providing resources and improving coping skills for those experiencing a stressful event. The main effect model is most closely related to the intrapersonal theories, while the stress buffering model stems from the stress and

coping perspective. The stress buffering model is consistent with seminal articles regarding effects of social support and health and can be examined with regard to specific contexts or problems. The stress buffering model is consistent with Caplan's conceptualization of the mechanism of support's protective effects. School consultation is a specific context in which the consultee utilizes an available resource (consultant) for assistance with solving a problem situation. Thus, the stress-buffering model of social support has the most relevance for this study.

Caplan's concept of social support is based on a relatively small collection of empirical data. Caplan (1974) predicted that empirical research documenting the positive influence of social support on physical and mental health would be a primary focus for researchers across the next decade. In fact, his prediction did materialize. To date, the positive effect of social support on physical health, mental health, and stress and well-being is well established in the literature by numerous research studies. In particular, participants who report having high levels of support generally have better health and well-being status than those who indicate low levels of support. Findings from experimental studies also have shown a positive impact of support on problem-solving abilities. Given the consistent, positive influence of support on a variety of outcomes, it can be reasoned that support is likely to be associated with important processes and outcomes of consultation.

The social support literature will be described next. In particular, social support's importance to research conceptualization; impact on physical health, mental health, stress, and problem-solving tasks; and measurement issues will be reviewed. The first section will describe seminal articles in this area by Cassell (1976) and Cobb (1976). Next, research

regarding the effects of support on physical health, stress and well-being, and mental health will be reviewed. The distinction between perceived and actual support and the importance of perceived support will then be detailed.

Social Support and Health

Although general interest in the relationship of support to health has a long history (Turner, 1999), research has gained momentum only during the past 20 years. In particular, seminal articles by Cassell (1976) and Cobb (1976) have spurred research efforts in this area. Cassell and Cobb independently reported results of extensive literature reviews on the positive effects of support on health. Both authors reviewed a variety of research designs, populations, and health outcomes and concluded that there is a positive relationship between support and health. Their articles indicated the importance of support as a protective factor against a number of physical and mental health disorders, including hospitalization, recovery from illness, arthritis, and depression. Both authors characterized support as a protective factor that buffered or "cushioned" individuals from negative consequences of stress and emphasized the potential usefulness of support as a prevention variable. A final noteworthy aspect of these reviews is that Cobb suggested the importance of supportive conditions for acquiring new skills and learning new tasks.

Research on Effects of Social Support on Physical Health

Since Cassell's (1976) and Cobb's (1976) reports, numerous studies have continued to report a positive relationship between social support and physical health (Broadhead et al., 1983; Helgeson, Cohen, & Fritz, 1998; House, Landis, & Umberson, 1988). For example, epidemiological studies have shown a predictive relationship of support on mortality

(Berkman & Syme, 1979; House, Robbins, & Metzner, 1982). House et al. reviewed a number of epidemiological and experimental studies of support and physical health and concluded that the information indicated lack of social support as a cause or risk factor of mortality across various diseases. More recent reviews of the effects of social support on physical health have confirmed earlier findings regarding a positive relationship between those variables (e.g. Berkman, Vaccarino, & Seeman, 1993; Reifman, 1995).

Social Support, Stress, and Well-Being

Social support has been positively associated with measures of well-being. Support is considered a stress reducing or buffering factor in studies of support, stress, and well-being (Letvak, 2002; Mitchell, Billings, & Moos, 1982). It has generally been recognized by health care professionals as an influential factor for reduced stress and enhanced coping skills (Letvak). Research has shown that individuals who report having high levels of support perceive less stress and have better coping skills (Turner, 1999). The buffering hypothesis of social support is based on evidence that has shown an interaction effect of stress, social support, and outcomes (Cohen & Wills, 1985). This model posits that support's beneficial effect is a result of a protective influence that occurs when a person is experiencing a stressful event. This model was described in more detail earlier in this literature review.

Mental Health

In addition to beneficial effects on physical health and well-being, numerous reviews have indicated that social support positively impacts mental health (Barker & Pistrang, 2002; Broadhead et al., 1983; Cohen et al., 2000; Cohen & Wills, 1985; Corrigan & Phelan, 2004; Greenblatt, Becerra, & Serafetinides, 1982; Leavy, 1983; Mitchell et al., 1982; Sarason &

Sarason, 1986; Tardy, 1992). Overall, there are several commonalities regarding the effects of social support on mental health across these reviews. For example, authors have recognized the potential effectiveness of support as a protective (Broadhead et al., 1983) and intervention factor (Cohen et al., 2000; Greenblatt et al., 1982; Hobfoll & Parris-Stephens, 1990). These and several other commonalities are listed in Table 1 along with the corresponding sources.

The literature on support and health illustrates the protective factor of this construct. This idea is consistent with Caplan's (1974, 1976) notions that support functions to improve physical and mental health of individuals. Caplan considered the role of the consultant to provide support to the consultee in order to alleviate his or her anxieties and emotional concerns related to the presenting case. This action would result in improved problem solving and better outcomes.

There is a documented discrepancy between effects of the perception of support and actual support behaviors (Barrera, 1986; Turner, 1999; Turner & Turner, 1999). That is, the perception of support is commonly assessed by self-report measures and is consistently positively related to outcome measures; actual (i.e., enacted) support is assessed by experimental observation and has failed to show a consistent relationship to positive outcomes. In the next section, the concepts of perceived support and enacted support will be described. This presentation is important in regard to selecting the most appropriate method to assess social support within the consultation context.

Table 1

Commonalities across Support and Mental Health Review Articles

Reference	Primary Findings
Barker & Pistrang (2002)	Support positively associated with indices of mental and physical health
Broadhead et al. (1983)	Support consistently, positively associated with mental health Support potential intervention variable Support potential protective variable Support quality better predictor than quantity Evidence for main effect and stress-buffering models Support causal contributor to mental health Support conceptualized as multi-dimensional construct
Cohen et al. (2000)	Support viewed as protective factor Support viewed as potential intervention variable Evidence for main effect and stress-buffering models
Cohen & Wills (1985)	Support causal contributor to psychological well-being Support quality better predictor than quantity Support effective for coping only when mode matches situation Evidence for both main effect and stress-buffering models Support potential protective variable Support conceptualized as multidimensional in nature
Corrigan & Phelan (2004)	Support potential intervention variable
Greenblatt et al. (1982)	Support potential intervention variable Support quality better predictor than quantity Beneficial effect of support reported from variety of sources

Table 1 (continued). *Commonalities across Support and Mental Health Review Articles*

Leavy (1983)	Support positively associated with mental health Support quality better predictor than quantity
Mitchell, Billings, & Moos (1982)	Support consistently, positively associated with mental health Support potential intervention variable Support potential protective variable Support has causal effect on functioning
Tardy (1992)	Beneficial effect of support reported from a variety of sources
Sarason & Sarason (1986)	Beneficial effect of support reported from a variety of sources

Conceptual Distinction between Perceived and Enacted Support

As previously stated, the social support literature has a number of weaknesses, including lack of clear conceptualization of the support construct. This situation has resulted in inconsistencies throughout the literature, and one such issue relates to the use of terminology. Specifically, authors have tended to create their own definitions of terms. Thus, similar terms often refer to distinct and different concepts depending on the author of the work. For example, the term *perceived support* has been associated with different meanings across the literature (See Table 2). Despite differences across terminology, authors who have defined perceived support as involving an individual's subjective appraisal of support (Barrera, 1986; Pierce et al., 1997; Turner, 1999) have consistently reported a

Table 2

Terminology used within the Perceived and Enacted Support Literature

Author(s)	Term	Definition
Tardy (1985)	Available	Quantity or quality of support to which people have access
	Enacted	Actual utilization of support resources
Pierce et al. (1997)	Perceived	Subjective appraisals of social environment
	Received/Enacted	Objective measures of supportive acts
Wills & Shinar (2000)	Perceived	Available if needed
	Received	Recently provided
Barrera (1986)	Perceived	Cognitive appraisal as being reliably connected to others (two possible dimensions: availability and adequacy)
	Enacted	Actions people perform when they render assistance to another
Procidano & Heller (1983)	Perceived	Extent to which an individual believes that his/her needs for support, information, and feedback are fulfilled
	Network	Social connections provided by the environment
Turner (1999)	Perceived	Target's interpretation of another's supportive actions
	Received	Help that helpers extend in providing assistance

Table 2 (continued)

Terminology used within the Perceived and Enacted Support Literature

Author(s)	Term	Definition
House (1981)	Perceived	Subjective perceptions of support
	Objective	Objective, ideally measured by scientific observation

stronger relationship between perceived support and health than objectively measured support. Discrepancies between research on effects of perceived and objective social support will be described next.

Importance of Perceived Social Support

Evidence has shown that the beneficial effect of social support is influenced by objective and subjective factors (Turner, 1999). Currently, there is consensus in the social support literature regarding the primary importance of perceived support on health outcomes (Sarason, Pierce, & Sarason, 1990; Turner, 1999). Research has reported that self-report measures of perceived support have been more consistently and strongly related to outcome variables of distress and stress than objective measures of actual supportive behavior (Barrera, 1986; Pierce et al., 1997; Turner, 1999; Turner & Turner, 1999). Although perceived support has been associated with psychological symptoms, actual support has rarely been associated with psychological symptoms (Dunkel-Schetter & Bennett, 1990; Lakey & Drew, 1997). Researchers have suggested that other factors impact health outcomes by their influence on perceived support (Turner; Turner & Turner). Additional evidence has shown that measures of perceived support have been less highly correlated with objective measures of support (Heller & Lakey, 1985; Pierce et al.), suggesting that these dimensions are separate and distinct. Finally, only measures of perceived support have been found to function as a buffer of stress across a variety of stressful situations (Cohen & Wills; 1985, Kessler & McLeod, 1985). With regard to the relationship of support and stress and well-being, it is the *perception* of support that is important for positive health outcomes, not necessarily whether support was received (actual) or not (Cohen et al., 2000).

A vast literature has consistently documented the positive effects of support on health outcomes. A few studies have examined the effect of support on problem-solving tasks. These studies are especially relevant for the proposed study given that a major task of consultation is problem solving. In fact, Caplan (1970) proposed that the provision of consultant social support functions to reduce the emotional involvement and anxiety that a consultee may experience with a case he or she brings to consultation. Through the consultation process, the consultee is allowed to express those issues and as a result, is able to improve his or her cognitive thinking abilities and more effectively problem solve. In the next section, empirical studies that have examined the impact of support on problem-solving tasks will be described.

Positive Effects of Support on Problem Solving

Although empirical studies on the effects of social support are limited, results suggest beneficial effects. For example, participants who were asked to complete problem-solving tasks performed better if social support was provided (Sarason & Sarason, 1986; Tardy, 1992). Sarason and Sarason presented participants with a laboratory anagram problem-solving task, and participants then read either a supportive verbal message from the experimenter or a simple instruction message. The results showed that participants who read a supportive message were more accurate and reported having better concentration compared to those who did not. In addition, results showed an interaction effect such that participants who reported low satisfaction with their general network benefited from experimental support, while those who reported high levels of satisfaction did not.

Findings of this study were replicated and extended by examining the effects of type of support (Tardy, 1992). Tardy reported an experiment that examined the process by which supportive messages by non-intimate sources improved performance on problem-solving tasks. Tardy asked participants to solve an anagram task, and social support was provided by means of a written statement. Participants received either a non-supportive statement, an instrumental-supportive statement, or an emotional-support statement. The results showed that the provision of a supportive message significantly improved performance on the anagram task and that the instrumental-supportive message resulted in the greatest gain in performance.

It can be concluded from these studies that support from non-intimate sources can have a significant impact on problem-solving performance (Tardy, 1992). Based on the interaction found in their own studies, Sarason et al. (1994) concluded that the effectiveness of support for problem-solving tasks depends on the context, type of problem, and supporter-recipient relationship. Results from these studies provide some level of support for Caplan's (1970) conceptualization of the mechanism of support in consultation.

A contributing factor to the debate regarding the mechanism of social support effects is a lack of psychometrically sound measurement instruments. That is, social support literature has a history of utilizing unvalidated, atheoretical, and global measurement instruments. This scenario has resulted in mixed and sometimes contradictory conclusions. A review of typical social support measurement issues and an evaluation of published measures of perceived enacted support follows.

Social Support Measurement

The social support construct has been assessed by a wide variety of methods. For example, some measures assess level of support based on a respondent's answer to one question and others consider more than 50 questions. Various dimensions of a respondent's social support have been assessed, such as number of individuals who make up the social support network, number of supportive behaviors received, and satisfaction with support. Other variations include the source (e.g., family, friend) of support. Currently, there are numerous measures of social support referred to in the literature. The most frequently cited measures will be considered in the following section. The importance of sound psychometric instruments for research purposes will be presented. Next, the organization of support measures and weaknesses common to many support measures will be described. Finally, the published measures of perceived support behavior will be examined in detail.

Appendix A lists all the social support measures included in seven key review articles. The articles were located by reviewing reference lists from recent empirical articles of social support and from a PsychInfo database search. To be included here, an article had to have the terms, *social support, measurement*, and *review,* in its abstract as the criteria for the PsychInfo search. In addition, only review articles that were published within the last 20 years were considered. Forty-five measures of support were cited across the review articles. Response format of the majority of measures is self-report. Measures that were included in five or more of the review articles are: (a) Interpersonal Support Evaluation List (ISEL; Cohen & Hoberman, 1983), (b) Interview Schedule for Social Interaction (ISSI; Henderson, Duncan-Jones, Byrne, & Scott, 1980), (c) Inventory of Socially Supportive Behaviors (ISSB:

Barrera, Sandler, & Ramsay, 1981), (d) Perceived Social Support From Family & Friends (PSS-Fa and –Fr; Procidano & Heller, 1983), and the (e) Social Support Questionnaire (SSQ; Sarason, Levine, Basham, & Sarason, 1983).

Importance of Validity and Reliability

A number of considerations are of importance when selecting measurement instruments for a research study. Of prime consideration are the validity and reliability of the instrument. Validity is the most important aspect of instrument selection (Ponterotto, 1996). Validity refers to whether the instrument yields an accurate measure of the construct that it purports to measure. More specifically, validity refers to the appropriateness of the measure for assessing the intended domain (Carmines & Zeller, 1979). In general, there are three methods for assessing validity of an instrument: (a) content-related validity, (b) criterion-related validity, and (c) construct validity. Content-related validity refers to the extent that items on the scale measure a specific domain or construct. This is usually determined by a subjective review of each item and does not contain inferential statistical procedures. Criterion-related validity refers to the extent that the instrument score relates to an outcome criteria score. This is assessed by a measure administered at the same time as (concurrent validity) or with a criterion measured at a later time (predictive validity). Construct validity refers to the degree to which scores on an instrument relate to scores on a different instrument in a manner that is consistent with theoretical underpinnings. Measures may be related to a similar (convergent) or unrelated (discriminate) construct. Factor analysis may also be utilized to assess the underlying dimension(s) of the measure.

Reliability refers to the extent to which scores are consistent across repeated measures. There are several options for assessing reliability of an instrument: (a) test-retest, (b) alternate form method, (c) split-half, and (d) internal consistency. Test-retest involves administering the measure to the same sample at two different points in time. Alternate form involves administering two parallel versions of the instrument. Split-half estimates are based on the division of the instrument into two equal halves where the correlation is calculated between the halves. Internal consistency is assessed from a single administration and Cronbach's alpha is often used to estimate internal consistency. Cronbach's alpha is the average of all possible split-half combinations and is a conservative estimate of reliability. Carmines and Zeller (1979) have suggested a lower limit of acceptability of .80 for widely utilized instruments.

Common Weaknesses of Support Measures

In general, there are a variety of weaknesses associated with social support measurement, including lack of a clear conceptualization of the construct, lack of a theoretical base, and weak or undetermined reliability and validity information. One aspect of social support research and measurement that has often been criticized is the lack of consensus regarding the definition of support (Heitzmann & Kaplan, 1988; O'Reilly, 1988; Turner & Turner, 1999; Winemiller, Mitchell, Sutliff, & Cline, 1993). O'Reilly (1988) noted in his review of social support measures that only 59% of the measures reviewed included clear definitions of support. For the studies that included definitions, there was a wide variety in what behaviors and events constituted support (O'Reilly, 1988). The variety of

definitions of support that are found in the literature contribute to a number of mixed results from empirical studies.

In addition, authors often fail to define which aspect of social support they intend to measure. Novel measures are often global in nature and provide limited information as to the function or dimension of support that is being assessed (Winemiller et al., 1993). Given that support is described as a multi-dimensional construct, global measures obscure specific effects.

Many of the numerous measures of support have weak to moderately strong psychometric properties (Heitzmann & Kaplan, 1988). Only a few measures have established reliability and validity information (Sarason, Sarason, & Pierce, 1990). Many authors have developed novel measures that correspond to a particular research question without documenting reliability or validity of the measure (Winemiller et al., 1993). When psychometric information is available, it often fails to meet minimum acceptable criteria (Vaux, 1992). Instruments that do have satisfactory reliability often have weak or no support for adequate validity.

A related concern is the lack of standardized measures (Winemiller et al., 1993). Little research has been conducted to determine the comparability across measures (Sarason, Sarason, et al., 1990). The lack of standardization precludes comparisons of the effects of social support across studies and across contexts.

Support Measurement Categories

Social support researchers have organized measures into three broad categories. For example, Wills and Shinar (2000) made the distinction between perceived support (available

if needed) and received support (recently provided), but did not mention network support. Barrera (2000) also referred to measures that assessed each of the major domains of support and identified each of those domains as social embeddedness, perceived social support, and enacted support. Barrera described a social network term, but did not clarify the domain to which it corresponded. In addition, perceived social support was described, but enacted support was not (Barrera). Sarason, Sarason, et al. (1990) referred to categories of network measure, received support, and perceived support; however, the definitional distinction between perceived support and received support was not clarified.

Vaux (1988) provided the most comprehensive description of support measurement categories. Therefore, the remainder of this dissertation will utilize Vaux's (1988) terminology (Table 3). Vaux defined three categories of support measures: (a) s*upport network,* (b) s*upportive behavior,* and (c) *support appraisals.* Support network measures are also referred to as measures of social embeddedness. The supportive behavior category is also commonly referred to as enacted or received support. The provision of actual supportive behaviors has been relatively understudied compared to network and appraisal support. Support appraisal measures are also commonly referred to as measures of perceived (available) support. Support appraisal is the largest category of support measures.

Appendix B provides a brief description of a few selected measures that represent each of these categories. These measures were selected based on the frequency ($f \geq 3$) that they were cited in six review articles that were published within the last 20 years.

Table 3

Vaux's (1988) Categories of Social Support Measures

Terminology	Definition	Examples of Measures
Support network	Group that an individual goes to or could go to for assistance	Social Support Questionnaire (SSQ) Sarason, Levine, Basham, & Sarason (1983) Arizona Social Support Interview Schedule (ASSIS) Barrera (1981) Social Network Questionnaire (SNQ) Hirsch (1979)
Supportive behavior	Actions that are viewed (by most members of the culture) as being intentional efforts to help another person	Inventory of Socially Supportive Behavior (ISSB) Barrera, Sandler, & Ramsay (1981) Social Support Behaviors (SSB) Vaux (1982)
Support appraisals	Subjective, evaluative assessments of a person's supportive relationships and the supportive behavior that occurs within them	ASSIS (Barrera, 1981) SSQ (Sarason, Levine, Basham, & Sarason, 1983) Perceived Social Support (PSS) Procidano & Heller (1983)

Distinction Between Available and Received Support

Another distinction made by social support researchers is between support that is received and support that is perceived to be available if a need arises. *Available support* is the perception that support will be readily available if a need arises (Dunkel-Schetter & Bennett, 1990). *Received support* is that which is actually received. According to Dunkel-Schetter and Bennett, available support is generally termed perceived support or perceived available support and received support is generally referred to by various terms (e.g., enacted, objective, administered). Terminology that equates perceived support with available support is not precise and leads to confusion. The perceived term can also be used in conjunction with the received support term (perceived-received support) to indicate a respondent's interpretation of supportive acts that were directed toward him or her (Barrera, 1986). The present study will focus on the respondent's perception of behavioral support that was received.

Currently, only two instruments that measure received support have been published (i.e., Inventory of Social Support Behaviors, Social Support Behaviors). These instruments were both designed to assess a respondent's perception of general supportive behaviors that may have been provided to them. Each of these scales, along with their psychometric data, will now be described in detail.

The Inventory of Social Supportive Behaviors (ISSB)

The Inventory of Social Supportive Behaviors (ISSB; Barrera et al., 1981) assesses enacted supportive behaviors. The measure was developed from a broad conceptualization of support that included forms of tangible and emotional support. The scale contains 40

items that describe supportive behaviors that may have been provided to the respondent. Respondents rate on a 5-point Likert scale the frequency with which they received the behaviors. The ISSB is typically utilized to examine the extent of received support during the previous 30 days. The scale was designed to assess a variety of support functions, such as provision of goods and guidance. The ISSB was designed to yield an overall general score of received supportive behaviors.

Barrera et al. (1981) assessed reliability of the ISSB by the test-retest method and estimated internal consistency by calculating coefficient alpha. Both estimates showed acceptable reliability estimates. Test-retest reliability was very good across a two day time interval (r = .88) and coefficient alpha was .93. The authors reasoned that a measure of network support would be related to the reported frequency of behavioral acts received. Thus, validity was determined by examining the relationship of ISSB to a measure of available network size, the Arizona Social Support Interview Schedule (ASSIS; Barrera, 1981). Total score on the ISSB was positively related to available (r = .42) and actual network size (r = .32) assessed by the ASSIS. Further, Barrera et al. predicted that frequency scores on the ISSB would be positively associated with cohesion scores on the Family Environment Scale (FES; Moos & Moos, 1981), a measure of perceived family support. Scores on the ISSB were positively, significantly correlated with scores on the FES Cohesion subscale (r = .36).

Although Barrera (1981) developed the ISSB to yield a general score of support based on a variety of behaviors, Stokes and Wilson (1984) examined the utility of the ISSB as a measure of dimensions of support. Results of a principal components analysis suggested

the unidimensional nature of the ISSB. However, given the hypothesized multi-dimensional nature of support, the authors further analyzed the nature of the principal components. This analysis yielded four components. Stokes and Wilson interpreted these components as: (a) emotional support, (b) tangible assistance and material aid, (c) cognitive information and feedback, and (d) guidance. Still, the authors concluded that utility of the ISSB was limited to a global measure of support for research purposes based on the finding that the first component was considerably larger than the others.

The Social Support Behavior Scale (SSB)

The Social Support Behaviors Scale (SSB; Vaux, Riedel, & Stewart 1987) consists of 45 items designed to assess support behaviors from friends and family. It was constructed to assess five modes of support: (a) emotional, (b) socializing, (c) practical assistance, (d) financial assistance, and (e) advice/guidance. Although the original form (Vaux, 1982) was designed to assess perceived available support, the measure can be adapted to assess enacted support with a change of wording (Vaux et al., 1987). The SS-B yields an overall support score in addition to subscale scores for each of these five modes of support listed.

The overall support score of the original version of the SSB has good internal consistency (alpha = .85) and internal consistency scores for the subscales were consistently greater than .90 (Vaux, 1992). The only published data regarding validity information for the SSB were reported by Vaux et al. (1987). These studies and results will be described next.

Vaux et al. (1987) reported a series of studies that assessed the validity of the five subscales of the original SSB (available supportive behavior). One of the reported studies adopted a role-adoption analogue procedure to simulate support deficits across each of the

five areas. For this procedure, the authors developed six short vignettes. The vignettes were general descriptions of a person who received either adequate or deficient support in one of the five dimensions. More specifically, there were ten conditions. Five conditions where participants were to imagine that an individual had a good support network for each of the support modes included on the SSB (emotional, socializing, practical assistance, financial assistance, and advice/guidance). These were the support adequate conditions. In the remaining five conditions, participants were to imagine an individual who had a poor or non-existent support network and received little or no support for each of the five modes included on the SSB. These were the support deficit conditions. Participants were then asked to read each vignette and then to "think as that person would" while completing the SSB. Results for each deficit condition showed lower reported support availability in the assigned condition compared to all other conditions. For example, a respondent in the financial assistance deficit condition reported lower scores on that subscale compared to his or her score on all of the other subscales. Respondents in the emotional support deficit condition reported decreased scores across all of the modes.

Vaux et al. (1987) then compared the SSB to the ISSB in order to establish convergent and divergent validity. Results supported predicted associations with convergent subscales. Results for divergent scales were mixed. An additional study assessed the variation of modes of support across various types of problems for the enacted support version of the scale. For this study, participants reported whether they had experienced a problematic event in any of ten possible categories (e.g., academic, financial, health, relationship conflict, relationship termination). Next, participants rated the negative impact of

the events. For the two most negative events, participants rated whether a friend or family member had provided one of the 45 specific supportive enacted behaviors contained in the SSB. Results showed significant differences of mean level of support behaviors across various types of events. Emotional and socializing modes of support were found to be reported for a range of problems with the exception of financial problems. Receipt of financial support was reported primarily for financial problems. Advice and guidance were reported as being moderately received across most problems with the exception of someone's death. Practical assistance was low across all problem types. Vaux (1992) reported that more psychometric studies were needed to support the utility of the enacted version for research purposes. More recently, Wills and Shinar (2000) stated that the psychometric qualities of this measure as a received support instrument remain unclear.

A final study (Vaux et al., 1987) reported results of Cronbach's alpha for each of the five functions and a confirmatory factor analysis for the original SSB. These data were included in a larger study that compared reported support for Caucasian and African American students. The data were reported separately by sample group. Participants completed the family and friend versions of the SSB. For the African American sample, the mean alpha for the family version of the SSB was .90 and mean alpha for the friend scale was .89. For the Caucasian sample, the mean alpha was .86 for the family scale and .83 for the friend scale. A confirmatory factor analysis results showed that every item loaded highly on the factor that it was intended to and none of the items loaded highly on any other factor. Total internal consistency was .85 and subscales were consistently above .90 (Vaux, 1992).

In sum, the two published measures of enacted support (i.e., ISSB, SSB) reviewed here were developed to assess an individual's general perception of supportive behaviors from family and friends. Thus, neither of these instruments in its present form is applicable for assessing perceived social support a consultee receives from a consultant within the school consultation context.

As noted earlier, support has been associated with improved coping behaviors and reduced stress (Letvak, 2002; Mitchell, Billings, & Moss, 1982). Empirical research has shown that people who report having high levels of support also report experiencing lower stress levels (Turner, 1999). Teachers experience specific work-related stressors that should be considered in any study involving school-related issues. As noted earlier, the social support literature has documented the beneficial effect of support for helping individuals cope with stress.

Conclusion

The preceding literature review has served to build the rationale for the purpose and hypotheses of this dissertation. School consultation is the process of working directly with a consultee in a problem-solving situation involving a client. Erchul and Martens' (2002) integrated model of school consultation consists of three interrelated tasks: (a) problem solving, (b) social influence, and (c) support and development. This dissertation focuses on the support and development task of Erchul and Martens' model.

Social support was conceptualized as an important component of an early consultation model, the mental health consultation model (Caplan, 1970). A consultant following the process of this model is to provide emotional support in the form of providing a

non-judgmental, safe environment for the consultee to voice frustrations and problems, and instrumental support in the form of assisting the consultee with tasks. A more recent model of school consultation includes social support as one of the primary tasks of the consultant (Erchul & Martens, 2002). These authors have made a conceptual link between consultation and social support. Despite this link, which dates back nearly 40 years ago, little to no empirical research has directly investigated the role social support plays in the consultation process.

Social support is a multi-dimensional construct (Barrera, 2000; House, 1981; Tardy, 1985; Turner, 1999; Vaux, 1992). This research has consistently shown a positive effect of support on physical and mental health outcomes; however, early measures of social support have been associated with a number of weaknesses (Heitzmann & Kaplan, 1988; Sarason, Sarason, et al., 1990; Wills & Shinar, 2000). Therefore a reliable, valid instrument for assessing social support within the school consultation context is needed. The instrument could then be applied to empirically investigate the impact of support on school consultation outcomes and processes. The next section describes the statement of the problem and hypotheses for constructing and assessing the reliability and validity of an instrument designed to measure social support within school consultation.

Statement of the Problem

School consultation is an effective, indirect helping process wherein a consultant (psychologist) interacts with a consultee (teacher) in order to help a client (student). Through this process, the consultant's goal is to promote change in both the consultee and the client. Although school psychologists currently spend approximately 20% of their professional time engaged in consultation, the demand for consultation services is likely to increase due to a growing emphasis on accountability and emerging alternative procedures such as response-to-intervention for helping students in the classroom.

Mental health consultation and behavioral consultation models have been the most frequently utilized in the school system; however, each model has been associated with particular weaknesses. In response, Erchul and Martens (2002) proposed the integrated model of school consultation based on empirical research conducted across a number of disciplines. Erchul and Marten's model of the school consultation process includes three component tasks: problem solving, support and development, and social influence. To date, little research has examined the social support task within this model.

Research conducted in the field of social support has a history of utilizing measures of support that lack a sound conceptual and theoretical basis, as well as weak psychometric properties. Weaknesses in current measures of social support make their direct application to the consultation process questionable. The aim of this study was to develop a measure of social support that addresses the specific nature of support within school consultation. As part of instrument development, data were collected and analyzed to assess the psychometric

integrity of the measure. The specific hypotheses and the rationales underlying them are presented next.

Hypotheses and Rationales

Hypothesis One (H1): Statistical analysis will show the School Consultation Support Scale (SCSS) to have good internal consistency.

Rationale. The SCSS was created to assess four dimensions of social support (emotional, instrumental, informational, and appraisal) specified by House (1981). Cronbach's alpha will be calculated for items that correspond with each dimension that is either confirmed by a confirmatory factor analysis (CFA) or is extracted from the data by an exploratory factor analysis (EFA) in order to estimate internal consistency. Alphas equal to or greater than .70 are considered acceptable for indicating good internal consistency (Nunnally & Bernstein, 1994).

Hypothesis Two (H2): Statistical analysis will show the SCSS to have four distinct underlying factors.

Rationale. Social support is considered by many authors to be a multi-dimensional construct (Cutrona & Russell, 1990; House, 1981; Tardy, 1985; Wills & Shinar, 2000). In keeping with this conceptualization, the SCSS was designed to yield scores that correspond to the four dimensions of support (i.e., emotional, instrumental, informational, and appraisal) as defined by House (1981). A CFA will be evaluated to assess the construct validity of the SCSS. If the fit tests for Hypothesis Two indicate an inadequate fit between the proposed model and the observed model, then Hypothesis Two will become a research question (alternate Research Question One, please see below).

Hypothesis Three (H3): Statistical analysis will show that each of the underlying factors of the SCSS will have criterion-related concurrent validity.

Rationale. The interpersonal skills factor of the Consultant Effectiveness Scale (CES; Knoff, McKenna, & Riser, 1991) assesses relational characteristics such as warmth and empathy within school consultation situations. Responses on these items yield a general measure of support, and these characteristics correspond to the content items on the SCSS. The number of underlying factors that is yielded on the SCSS with the proposed sample will first be established by factor analysis procedure(s) (i.e., four factors as predicted and tested with a CFA or an undetermined number of factors extracted with an EFA). Each factor score will be correlated with the interpersonal skills factor of the CES. It is predicted that results will show a positive relationship between responses on the SCSS and the interpersonal skills factor of the CES. An obtained correlation equal to or greater than $r = .50$ will indicate good concurrent validity (Guilford, 1936).

Hypothesis Four (H4): Statistical analysis will show the SCSS to have good construct validity.

Rationale. Evidence regarding the effects of support on consultation process outcomes suggests that support has a positive impact on consultees' satisfaction, progress toward problem resolution, and perceived consultant effectiveness (Horton & Brown, 1990; Hughes & DeForest, 1993; Maitland et al., 1985). Support has also been shown to have a positive impact on the psychotherapeutic process (Bachelor & Horvath, 1999; Orlinsky, Grawe, & Parks, 1994), which has several parallels with the consultation process (Newman, 1993). Therefore, it is predicted that the perceived receipt of supportive behaviors will be positively associated with perceptions of consultant effectiveness. Consultant effectiveness will be assessed by the Consultant Evaluation Form (CEF; Erchul, 1987). A correlation

equal to or greater than .70 will indicate good construct validity (Nunnally & Bernstein, 1994).

Alternate Research Question 1 (RQ1): If Hypothesis Two fails to indicate four underlying factors of the SCSS, then this hypothesis will become Research Question One: How many underlying factors does the SCSS have?

Rationale. In keeping with the multi-dimensional conceptualization of social support, the SCSS was designed to assess four underlying dimensions of social support that correspond to House's (1981) dimensions of the construct. However, if statistical analysis fails to indicate four underlying factors, then an EFA will be conducted to determine the number of dimensions that are assessed by the SCSS.

Method

The next section describes the methodology of this study. A version of the SCSS was first piloted with a small sample and preliminary statistical analyses were conducted, and these results will be described first. Then, the methodology for the full study will be described.

Pilot Study

Participants

Twenty special education graduate students at NC State University made up the pilot study sample. There were nineteen female participants and one male participant. Mean age of the sample was 31.95 (*SD* = 9.54) and mean years of teaching experience was 7.35 (*SD* = 7.60). Nineteen (95%) of the participants were Caucasian and one was African-American. Five participants reported having earned a Bachelor of Arts (B.A.) degree, six had earned a Bachelor of Science (B.S.), one had earned a Master of Arts (M.A.), and eight reported having earned a B.A. and taken some graduate school courses. One participant reported currently teaching pre-kindergarten, eight participants reported currently teaching elementary grade levels, six were teaching middle school grade levels, and one was an administrator at an elementary school. Three participants omitted this response.

Participants reported consultant descriptive data for the consultation they were thinking about while completing the instrument. The majority of participants reported that the consultation occurred while teaching an elementary grade level (*n* = 9). Other grade levels reported included pre-kindergarten (*n* = 2), middle school (*n* = 7), and high school (*n* =

2). Participants reported that 95% of the consultants were female and the mean consultant age was 40.5 (*SD* = 7.31).

Instrumentation

Instrumentation for the pilot study consisted of the first version of the instrument under development, the School Consultation Support Scale (SCSS), included in Appendix C. The first sentence of the questionnaire briefly describes the purpose for its use. The following paragraph contains a description of school consultation that was utilized in previous school consultation research by Gonzalez, Nelson, Gutkin, and Shwery (2004). The initial version of the SCSS contained 62 items developed to describe and evaluate social support that is received during school consultation. The process of generating these items is described in the procedures section below.

Procedures

Generation of items for the SCSS. Items included on the SCSS were developed to assess descriptive information regarding the extent to which teachers received social support from a school psychologist during the process of consultation. Current published measures of social support were first reviewed, and most items on those instruments inquired about supportive behaviors that were not applicable to school consultation. However, seven of the items on the Social Support Behavior Scale (SSB; Vaux, Riedel, & Stewart, 1987) were applicable. Thus, these items were included in the SCSS and are denoted by an asterisk (*).

One instrument developed for use in school consultation research, the Consultant Effectiveness Scale (CES; Knoff et al., 1991) also was reviewed. This instrument includes a factor that focuses on consultant interpersonal skills. Four items on this factor were

conceptually relevant to the assessment of support. These items were included in the SCSS and are denoted by two asterisks (**).

Additional items that refer to specific supportive behaviors that are likely to occur within school consultation were developed by the author for inclusion in the SCSS. Forty eight items were developed based on a multi-dimensional conceptualization of the social support construct (Tardy, 1985) to tap the four dimensions of social support defined by House (1981): (a) emotional, (b) instrumental, (c) informational, and (d) appraisal support.

Procedure. The NC State Institutional Review Board reviewed and approved the following procedures for the pilot study. Permission was requested and granted by four professors to enter their graduate-level special education classrooms and ask for volunteers to complete a preliminary version of the SCSS. Student volunteers, who were mainly licensed classroom teachers, agreed to voluntarily complete a preliminary version of the SCSS and return it to the experimenter. No personal identifying information was requested from the students, thereby ensuring confidentiality and anonymity of participants.

*Statistical Procedure*s

Mean responses and Cronbach's alphas were calculated for each proposed subscale of the SCSS and overall. The mean score for the emotional support subscale was 3.83 (*SD* = 1.07) and Cronbach's alpha for this scale was .96. For the informational support subscale, the mean was 3.59 (*SD* = 1.09); alpha was .96. For the instrumental support subscale, the mean was 3.20 (*SD* = 1.21); alpha was .95. The mean for the appraisal support subscale was 3.84 (*SD* = .95); alpha was .94. The overall mean was 3.64 (*SD* = 1.06), with alpha of .98. These results, though based on responses from only 20 participants, indicate a high degree of

internal consistency for each of the proposed subscales. However, the high coefficient alpha obtained for the overall scale suggests the SCSS measures a single dimension of social support.

Pilot study responses were also evaluated through a principal components analysis using varimax rotation. Kaiser's (1960) stopping rule was used to determine the number of eigenvectors to extract. Results showed 11 factors having eigenvalues greater than one. The first factor accounted for the majority of the overall variance (52.08%). Consistent with this finding, a scree plot of the data showed a sharp drop after the first factor. A second principal components analysis was conducted in which the number of possible factors was limited to four, in order to preliminarily assess correspondence to House's (1981) four dimensions. Factor loadings based on this analysis showed that 14 of the 18 questions designed to assess the emotional dimension of support loaded most highly on the first factor extracted. Seven questions that assess instrumental support loaded most highly on the second factor and five of the instrumental support questions loaded most highly on the third factor. Five informational support questions loaded most highly on the fourth factor.

In addition to the quantitative analysis, the returned instruments were visually examined for written comments or items that respondents may have omitted consistently. This qualitative approach did not reveal any written comments or other indications of problems with the instrument.

In conclusion, pilot study results, though somewhat helpful, appear to be severely limited due to the small number of participants (n = 20). Based on this key limitation, the

results were not deemed sufficient to eliminate items, significantly alter the instrument, or re-assess the proposed hypotheses prior to the full study.

Full Study

Participants

A national sample of special education elementary school teachers (grades K – 5) was asked to participate in this research. A database of 1000 randomly selected names and home addresses of special education elementary school teachers was purchased from USA DATA (www.usadata.com).

Instrumentation

A response packet was included in the mailing along with a self-addressed, business reply (i.e., prepaid) envelope. The complete instrument, included in Appendix C, consisted of five separate sections that are described in detail below.

Consultant information. Questions 1 through 4 of the questionnaire asked the respondent to provide descriptive information regarding the consultation and consultant that he or she would be referring to when completing the remaining questions. Respondents were asked to provide information based on the most effective consultation he/she had participated in with a school psychologist to answer the questions.

Consultant Evaluation Form (CEF). The second section of the questionnaire consisted of the Consultant Evaluation Form (CEF), a 12-item instrument designed to assess the consultee's perceptions of the consultant's effectiveness. The CEF corresponds to items (5 - 16) in Appendix C. The respondent is asked to rate on a 7-point Likert scale the extent that he or she disagrees or agrees with each item based on the consultant who facilitated his

or her most effective consultation. The anchors on the scale range from strongly disagree (1, indicating low level of effectiveness) to strongly agree (7, indicating high level of effectiveness). Total scores can range from 12 to 84. Internal consistency scores for the CEF are very good, with coefficient alphas ranging between .94 and .95 across several samples (Erchul, 1987; Erchul & Chewning, 1990; Erchul, Covington, Hughes, & Meyers, 1995).

More recent coefficient alphas reported by Sheridan, Eagle, Cowan, and Mickelson (2001) range between .83 for a teacher sample and .89 for a parent sample. Descriptive data for the CEF have been reported by several authors. Erchul (1987) reported descriptive data for the CEF (M = 70.59, SD = 11.38). Erchul and Chewning (1990) reported a M = 74.5 and SD = 11.3 based on consultants from four different universities (n = 85). Erchul et al. (1995) reported a M = 73.4 and SD = 7.8 based on 26 consultants. The CEF has been utilized in a number of previous studies to assess consultant effectiveness (e.g., Erchul, 1987; Erchul & Chewning, 1990; Erchul, Hughes, Meyers, Hickman, Braden, 1992; Hughes & DeForest, 1993; Kratochwill, Elliott, & Busse, 1995; Kratochwill, Sheridan, Rotto, & Salmon, 1991; Sheridan et al., 2001; Sheridan et al., 2004; Witt et al., 1991).

School Consultation Support Scale (SCSS). The third section of the questionnaire was the principal measure under development, the SCSS. As noted previously, this measure consists of 62 items developed to describe and evaluate social support that is received by a teacher from a psychologist. Participants were asked to indicate how important each activity described was to the success of his or her most effective consultation. This section comprised items 17 through 78 of the questionnaire.

Consultation Effectiveness Scale (CES). Knoff et al. (1991) developed the Consultation Effectiveness Scale (CES) to identify and empirically measure skills and characteristics of effective school consultants. The CES yields a measure of behaviors and skills that are associated with effective consultants, including interpersonal skills, problem-solving skills, consultation process and application skills, and ethical and professional practice skills. The interpersonal skills factor of the CES yields a measure of consultant relationship building and maintenance skills such as warmth, empathy, approachability, encouragement, and trustworthiness. These authors included a 5-point Likert scale that ranges from *extremely unimportant* (1) to *extremely important* (5). Participants were asked to continue thinking about their most effective consultation while completing these items. The items that make up the interpersonal factor of the CES were included in the fourth section (items 79 - 102) of the response packet. The SCSS and the CES both purport to measure an aspect of consultant interpersonal skills related to support.

Knoff, Hines, and Kromrey (1995) asked school psychologists to consider the most and least effective consultant that they had ever worked with with. Participants were then requested to rate the degree to which each consultant demonstrated the skills and behaviors on the CES. Results of this study showed mean ratings on the CES for each item ranging from 2.21 (*SD* = 1.33) to 6.73 (*SD* = .54) (Knoff et al.). Cronbach's alpha for the interpersonal factor ranged from .78 to .88. Internal consistency estimate for the interpersonal factor (24 items) was .95. Factor loadings for items on the Interpersonal Skills factor ranged from .41 to .78 and total factor scores range from 24 to 120. In addition, results of this study

demonstrated the CES's ability to successfully discriminate between effective and ineffective consultants.

The CES has been previously utilized to assess teacher perceptions of the effectiveness of school psychologists' consultation skills in two published studies (Gonzalez et al., 2004; MacLeod, Jones, Somers, & Havey, 2001). Gonzalez et al. (2004) investigated variables predicted to be associated with teacher resistance in consultation. The authors of this study identified numerous variables that have been found to be related to teacher resistance to engage in consultation with a school psychologist. They then further categorized these variables into nine variables and then assessed teacher perceptions of the variables' role in promoting or diminishing resistance to consultation with school psychologists.

One of the variables assessed by Gonzalez et al. (2004) was the school psychologist's interpersonal and relationship skills. For this variable, the authors obtained and modified 10 items from the CES. Coefficient alphas were .89 for the interpersonal skills factor and .95 for the problem-solving skills factor of the CES. A factor analysis was conducted on the results of the questionnaire. Results showed that eight factors accounted for 57% of the total variance. Of those factors, one accounted for 36.8% of the variance. The authors labeled this factor School Psychologist Characteristics. Results of a stepwise regression analysis showed that none of the variables, including the school psychologist's interpersonal and relationship skills, were significant predictors of engaging in school consultation. Thus, this research did not shed light on the variables thought to be associated with teacher resistance to engaging in school consultation.

MacLeod et al. (2001) utilized the CES in an investigation on teacher perceptions of effectiveness of school-based behavioral consultation. The sample consisted of public school teachers who volunteered to participate in a research study involving school-based consultation between a school psychologist and teachers. Teacher participants were asked to evaluate the most effective consultant with whom they had worked within the past 12 months. Participants were asked to complete a measure of consultation skills, consultation quality indexes, and consultation outcome indexes. Consultant skills were assessed by asking participants to rate the degree to which the consultant exhibited each item included in the CES. For this investigation, internal consistency for the Interpersonal Skills subscale was .98 and the mean rating was 4.28. The total factor mean for interpersonal skills was 103 (*SD* = 17.9). Participants rated quality by answering yes/no to six questions. Outcome was determined by asking the participants to reply to 5 questions. An analysis of the relationship among effectiveness measures showed that the interpersonal skills factor of the CES was moderately associated with the quality index ($r = .53$, $p < .001$) and the positive outcome index ($r = .50$, $p < .001$) measures.

Demographic information section. The final section of the overall instrument consisted of demographic questions (items 103 - 107) relevant to the present study, such as the number of years teaching experience and highest earned degree. Standard demographic questions were also included, such as participant age, current grade level teaching assignment, gender, racial/ethnic background, and previous contact with a school psychologist in a consulting situation.

Procedure

Data collection procedures. The response packets were mailed to the teachers, who were asked to complete the survey based on their experiences with consultation and to individually return the packet in the provided self-addressed, prepaid envelope. Steps were taken to ensure confidentiality and anonymity of the participants; for example, no personal identifying information such as names or personal addresses were requested on the return survey form, and a code was written on each form in order to track the surveys that were not returned. For respondents who failed to return a completed survey within a four-week time frame, follow-up reminder postcards were mailed. As with the pilot study, the NC State Institutional Review Board approved all procedures prior to implementation.

Results

The results of this dissertation research will be organized in three sections. The first section will present a description of the participant pool and instrument characteristics, including the means and standard deviations of the proposed dimensions of social support. The second section will present results of the data screening procedures. The third section will test the hypotheses of this research.

Participants

Descriptive statistics. A total of 1,000 surveys were mailed to recipients whose contact information was purchased from a marketing firm, USA Data (292 Madison Ave, 3rd Floor; New York, NY, 10017; usadata.com). Parameters of the sample included special education elementary school teachers randomized by state, employed in a public school system. Of the 1000, 33 envelopes were returned to sender by the postal service due to invalid addresses. Therefore, only 967 potential participants of the proposed 1,000 were considered to have actually received the survey. In this study, 192 of the 967 individuals returned the survey, for an overall response rate of 19.86%. However, of the returned surveys, 59 respondents checked the box indicating he/she had never worked with a school psychologist in consultation; these surveys were not included in the analysis procedures. Furthermore, a survey was considered unusable if four or more responses were omitted from the SCSS portion of the survey. Twenty surveys fell into this category and thus were not included in the statistical analysis procedures.

Of the 110 usable surveys, 94.5% of the respondents were female, 5.5% were male. The sample was predominantly Caucasian (92.7%); the remainder of the sample was

Hispanic, 2.7%, African-American, 1.8%, Asian, 1.8%, Multiethnic, 0.9%, Native-American, 0.0%. With regard to level of education, 19.1% of respondents had earned a Bachelor's degree (BA/BS); 60%, a master's degree (MA/MS/Med); 16.4%, a specialist degree (Masters + 30 hours); and 3.6%, a doctoral degree. One respondent (.9%) omitted education level information. The respondents had a mean age of 48.7 years (*R*= 25-65), reported an average of 20 years (*R*= 3-36) of teaching experience, and represented 39 states. The grade level taught during the consultation was Pre-kindergarten and Kindergarten (14.5%), first grade (16.4%), second grade (14.5%), third grade (20.9%), fourth grade (14.5%), fifth grade (8.2%), and some other grade (10.9%). Reported current grade level taught for respondents was Pre-kindergarten and kindergarten (10%), first grade (11.8%), second grade (18.2%), third grade (18.2%), fourth grade (15.5%), fifth grade (7.3%), and other grade (17.3%). Two respondents (1.8%) omitted providing current grade level taught.

As for the school psychologists whom the teacher respondents had in mind when they were completing the SCSS, 70% were female and 30% were male. The consultants were 96.4% Caucasian, 0.9% Multiethnic, 1.8% Hispanic, and 0% African-American, Asian, and Native American. One respondent omitted information regarding the racial group of the consultant. The consultant mean approximate age as reported by the teacher was 39.6 (*R* = 54).

Preliminary Data Analysis

Data screening. Data screening followed procedures outlined by Tabachnick and Fiddell (2001). First, the database was searched for missing values and accuracy of input. Second, the descriptive statistics were calculated and examined. Third, the normality of the

distribution was assessed. Fourth, steps were taken to identify and deal with outliers at the univariate and multivariate levels. Finally, variables were inspected for multicollinearity. The results of each procedure are described briefly below.

Missing values. The database was visually inspected for missing values and accuracy of input. Missing data were present in seven cells and, consequently, the mean item response value of the corresponding participant was substituted for the missing one for five different participants. Miscoded values were found for three participants and those entries were replaced with the corresponding rating marked on the participants' survey.

D*escriptive statistics.* Means, standard deviations, skewness, and kurtosis values for each item of the SCSS data set were calculated and are presented in Table A in Appendix D. The skewness values ranged from -2.74 (item number 22) to -.115 (item number 57). Twenty-three of the items had a negative kurtosis value and 39 had a positive one; kurtosis values ranged from -.98 (item 63) to 9.79 (item 22). These descriptive data suggest that responses on the items of the SCSS are negatively skewed and form a non-normal distribution.

Means, standard deviations, skewness, and kurtosis values for each item of the CEF and CES are presented in Tables 4 and 5. Cronbach's alpha for items on the CEF was .97 and Cronbach's alpha for items on the CES was .95. In the next section, results of tests of the normality of the SCSS are presented.

Testing normality of the distribution. Statistical tests of normality for the univariate variables were conducted by calculating Shapiro-Wilk *W* statistic for each variable (Shapiro

Table 4

Descriptive Statistics by Item for the CEF

Item Number	Mean (*SE*)	Median	Standard Deviation	Skewness	Kurtosis
5	5.93 (.12)	6.00	1.27	-2.09	5.37
6	5.88 (.12)	6.00	1.25	-1.74	3.60
7	5.85 (.13)	6.00	1.36	-1.67	2.83
8	5.47 (.14)	6.00	1.46	-1.29	1.49
9	6.15 (.13)	7.00	1.37	-2.24	5.09
10	5.40 (.13)	7.00	1.56	-1.11	.82
11	6.02 (.13)	6.50	1.38	-1.93	4.00
12	5.25 (.13)	5.00	1.33	-.86	.96
13	5.58 (.16)	6.00	1.67	-1.28	.87
14	5.51 (.15)	6.00	1.57	-1.22	.92
15	5.76 (.14)	6.00	1.43	-1.70	3.18
16	6.07 (.14)	7.00	1.49	-2.09	4.31

Table 5

Descriptive Statistics by Item for the CES

Item Number	Mean (*SE*)	Median	Standard Deviation	Skewness	Kurtosis
79	3.96 (.08)	4.00	.88	-.84	1.08
80	4.28 (.07)	4.00	.72	-1.08	2.67
81	3.82 (.09)	4.00	.96	-.76	.53
82	4.48 (.06)	5.00	.59	-.62	-.56
83	3.81 (.09)	4.00	.94	-.68	.56
84	3.71 (.09)	4.00	.97	-.66	.49
85	4.48 (.09)	5.00	.60	-.69	-.47
86	4.64 (.05)	5.00	.54	-1.11	.22
87	4.53 (.06)	5.00	.63	-1.24	1.50
88	4.34 (.06)	4.00	.67	-.53	-.72
89	4.41 (.06)	5.00	.67	-.71	-.57
90	4.51 (.07)	5.00	.70	-1.75	4.73
91	4.36 (.06)	4.00	.67	-.59	-.69
92	4.51 (.06)	5.00	.62	-.87	-.23
93	3.68 (.09)	4.00	.93	-.12	-.21
94	3.62 (.09)	4.00	.92	-.25	-.06

Table 5 (continued). *Descriptive Statistics by Item for the CES*

Item Number	Mean (*SE*)	Median	Standard Deviation	Skewness	Kurtosis
95	4.34 (.07)	4.00	.72	-.77	-.14
96	4.45 (.06)	5.00	.67	-1.58	5.07
97	4.34 (.07)	4.00	.74	-.63	-.90
98	4.50 (.06)	5.00	.68	-1.03	-.15
99	4.64 (.06)	5.00	.65	-1.78	2.69
100	4.48 (.06)	5.00	.66	-1.10	.92
101	4.50 (.07)	5.00	.70	-1.22	.77
102	4.50 (.08)	5.00	.86	-2.33	6.33

& Wilk, 1965, 1968). Results included in Table B in Appendix E (Shapiro-Wilk) show that all the univariate variables have a nonnormal distribution.

The multivariate normality assumption was tested by calculating Mardia skewness and Mardia kurtosis statistics (Mardia, 1970, 1974). The value of the Mardia statistic will be large when abnormal clustering of data points occurs in the distribution (Kotz, Balakrishnan, Read, & Vidakovic, 2006) and statistical significance indicates a nonnormal distribution. The obtained value for the Mardia skewness statistic was 48524 ($p < .0001$) and the obtained value for the Mardia kurtosis statistic was 8.27 ($p < .0001$). These values indicate that the shape of the obtained multivariate distribution significantly deviates from that of a

multivariate normal distribution. Based on these results, the obtained distribution fails to meet the assumption of normality at both the univariate and multivariate levels of analysis.

Identifying univariate outliers. The data were next examined for both univariate and multivariate outliers. Univariate outliers were determined based on the calculation of standardized scores and Box plots. According to Tabachnick and Fidell (2001), values with *z* scores greater than 3.29 are considered potential outliers. Within the SCSS data, 29 total univariate data points were determined to be outliers.

Each of the four proposed social support dimensions (i.e., emotional, informational, instrumental, and appraisal) contained outliers; however, the outliers did not appear to be evenly dispersed across the dimensions. The appraisal dimension contained 13 outliers, informational contained 9, emotional contained 4, and instrumental contained 3. In addition, seven participants had three or more outliers with *z* scores equal to or greater than 3.29 across the items.

Identifying multivariate outliers. The Mahalanobis distance statistic was calculated in order to detect the presence of multivariate outliers. This statistic represents the distance of a value from the point that it is located at the intersection of the means of all the variables (Tabachnick & Fidell, 2001). Results of the Mahalanobis analysis indicated that there were two multivariate outliers in the SCSS dataset.

The distribution of the data was skewed and had a peaked shape with short tails. Potential univariate outliers reflected responses of 1's and 2's on the five-point Likert scale used for the SCSS. Rather than delete items identified as outliers, these items were retained in the final analysis in order to maintain the variance they contributed to the distribution.

Testing for multicollinearity. Multicollinearity refers to the intercorrelations among predictors in multiple regression and correlation analysis (Licht, 1997). Intercorrelations between variables of $r > .80$ are considered problematic (Licht). In order to determine the magnitude of intercorrelations in the SCSS dataset, bivariate correlations for each question were calculated and visually examined. None of these correlations exceeded .80, indicating that multicollinearity of this dataset fell within an acceptable range.

In summary, results of these preliminary analyses indicated problems with the SCSS dataset. The dataset contained outliers; was negatively skewed; and had a tall, peaked shape. Statistical transformation of the entire dataset therefore was recommended to achieve a distribution that more closely approximated normality. Consequently, a series of transformations were calculated on the dataset to attempt to achieve normality. A description and results of transformations are presented next.

Transforming the SCSS Dataset

As noted, transformations are recommended for altering the shape of a distribution so that it more closely resembles that of a normal distribution (Box & Cox, 1964; Osborne, 2002; Tabachnick & Fidell, 2001). A variety of mathematical functions were tried, including those representing power series (square, cube, and fourth power) and root series (*square root*, the *log*, and the *reciprocal)*. The data were also "reflected" (Osborne; Tabachnick & Fidell) in an effort to obtain a normal distribution. It is often necessary to try several transformations to achieve normality; however, due to the nature of the variables under study, some datasets may never achieve normality (Tabachnick & Fidell). The results of the transformations are included in Table C in Appendix F. Unfortunately, no transformation

resulted in attaining multivariate normality for the distribution. Given this outcome, it was decided to proceed with additional analyses without transforming the SCSS dataset.

SCSS Scale Analyses and Characteristics

Reliability. Alpha coefficients were calculated to estimate the internal consistency of the overall scale and each scale dimension. The coefficient alpha for all items on the SCSS was high (.96). Coefficient alphas for the four dimensions of support were all high (ranging from .86 to .92). The alpha for the emotional dimension was .92; informational dimension, .89; appraisal dimension, .88; and instrumental dimension, .86. All coefficient alphas were greater than .70, indicating good reliability. These results provided support for Hypothesis One.

Fit of factor structure. The fit of the model of the obtained data to the proposed model was evaluated by calculating several fit indices. It was hypothesized that the observed data would fit a four-factor model, and this fit was tested by conducting a CFA. Results of the CFA indicated that the obtained data did not fit the proposed four factor model, (X^2 (1823) = 4434.1, p <.05); comparative fit index = .485, normed fit index = .363, incremental fit index = .491, Tucker-Lewis Index = .465. The Chi square statistic was 4434.1, df = 1823, p < .05. Results for the NFI (.363), IFI (.491), TLI (.465) and CFI (.485) indicate a poor fit between the proposed model and the obtained data. Thus the obtained dataset did not fit the proposed four factor model; Hypothesis Two was not supported.

Given the failure of the obtained data to fit the proposed four factor model, alternate Research Question One was investigated. This question involves determining the number of

underlying factors that are present in the SCSS data using EFA. Results of the EFA are described next.

Exploratory factor analysis and interpretation. An exploratory factor analysis with principal components extraction and promax rotation was conducted on responses for the SCSS. Results showed that Kaiser-Meyer-Olkin Measure of sampling adequacy was good (.799) and Bartlett's Test of Sphericity was also good (Chi square = 5584.20, *df* 1891, $p <$ .001). Thirteen factors with eigenvalues greater than 1 emerged. Together, these thirteen factors accounted for 73.6% of the variance. Based on visual examination of the scree plot, the location of the elbow suggests that only the first three factors should be extracted. Further support for this decision came from an augmented parallel analysis test. Results of the parallel analysis test are included in Figure 1. When using a parallel analysis test, it is recommended that factors derived from the obtained dataset be retained if the eigenvalues are greater than those derived from the randomly generated matrix (Frazier & Youngstrom, 2007). Visual examination of the scree plots for the average eigenvalues for the randomly generated dataset and the eigenvalues for the obtained dataset showed that the obtained data have three eigenvalues that are greater than the ones derived from the artificial data set. Together, these three factors accounted for 47.5% of the variance. A second factor analysis was conducted in order to force a three factor solution to allow for interpretation. Results of the pattern matrix are included in Table D in Appendix G. A decision rule of .30 was utilized to determine which factor(s) items loaded onto. Based on this decision rule, item 31 (instrumental) failed to load on any of the three factors and seven items crossload onto two

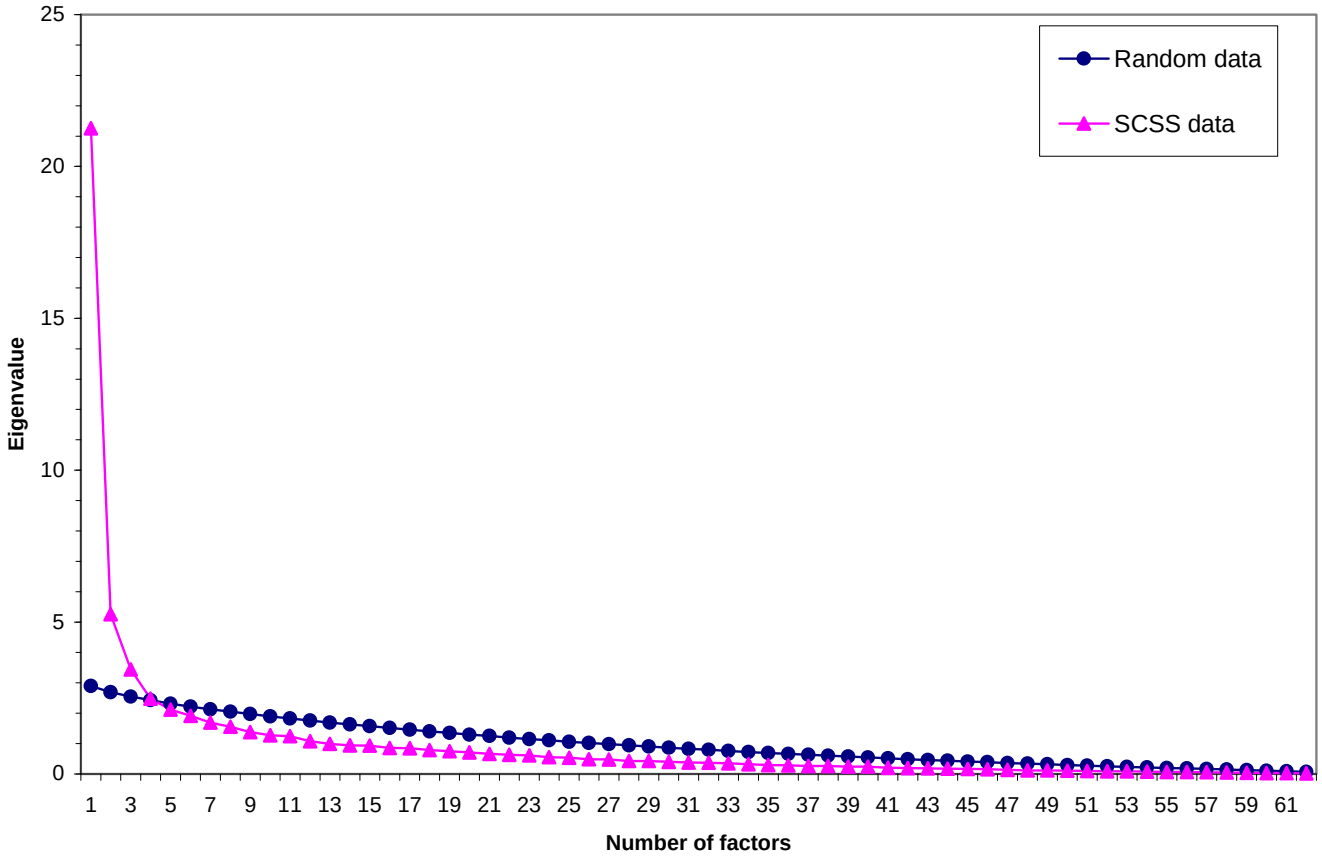

Figure 1. Parallel Analysis Plot

factors. The next section describes the pattern found among the items and their corresponding factors.

First, the results of the EFA were examined to determine which items loaded onto each factor. The first factor consisted of 12 emotional items, 9 appraisal items, 4 informational items, and 2 instrumental items. This factor contained four items that crossload onto a different factor. The second factor consisted of two emotional items, five informational items, eight instrumental items, and two appraisal items. This factor contained seven items that crossload onto another factor. The third factor consisted of three emotional items, three informational items, one instrumental item, and two appraisal items. This factor contained four items that crossload onto another factor.

Appendix H lists each item along with the factor on which it primarily loaded. The first factor consisted primarily of items that relate to the consultee's emotions and feelings, and contained items that relate to the provision of information by explanation and ensuring understanding to the problems and possible solutions. Because this factor is interpreted as mainly assessing emotional support, it was labeled *emotional*. The second factor primarily contained items that reflect the provision of information regarding the problem and potential solutions. This factor appears to relate most closely to informational support and thus was labeled *informational*. The third and final factor is difficult to interpret as it consisted of items that represent all four definitional types of social support (House, 1981). This third factor was tentatively labeled *instrumental* as it appears to represent items that assess instrumental support.

Criterion-related concurrent validity. Hypothesis Three predicted that each of the underlying factors of the SCSS would have criterion-related concurrent validity. The Pearson *r* correlation coefficient between responses on the CES and each of the determined factors was .78 ($p < .01$) for Factor One; .59 ($p < .01$) for Factor Two; and .40 ($p < .01$) for Factor Three. Although each of these correlations was significant, only the correlations for Factors One and Two met the .5 criterion that suggests acceptable concurrent validity. Hypothesis Three thus was partially supported.

Construct validity. Hypothesis Four stated that the SCSS will have acceptable construct validity. The Pearson *r* correlation coefficient between responses on the CEF and each of the determined factors was .47 ($p < .01$) for Factor One; .26 ($p < .01$) for Factor Two; and .26 ($p < .01$) for Factor Three. Although these correlations are statistically significant, none reach the .70 criterion for indicated good construct validity. Hypothesis Four thus was not supported.

Qualitative Analysis

On SCSS, 130 1's and 184 2's were endorsed across the scale. Twenty items did not have any 1's endorsed. Item 57 had the highest number of 1's endorsed, which totaled 18. Items 49, 50, 52, 53, 57, and 71 included 1's that were endorsed by five or more participants. Nine items had no 2's endorsed. Item number 57 had the highest number of 2's (14) endorsed by participants. These items were a mix of emotional, informational, and appraisal items.

Responses of 3's, 4's, and 5's were endorsed on every question. Item 70 had the smallest number of 3's (two 3's) while item 57 (fifty-two 3's) had the largest number. Item

57 had the smallest number of 4's endorsed (eighteen 4's) while items 51 and 58 (sixty-one 4's each) had the largest. Item 57 had the smallest number of 5's endorsed (eight 5's) while item 22 (eighty-two 5's) contained the highest.

This information suggests that teachers feel that a variety of supportive acts are important for effective school consultation. Furthermore, overall, teachers considered acts of support to be very important to extremely important. The shape of the distribution that reflects the importance of social support for consultation may be one where a negative skew represents the true relationship.

Discussion

The purpose of this dissertation was to develop a measure to assess social support within school consultation and provide preliminary empirical evidence of its reliability and validity. The SCSS was designed to assess four dimensions of support (i.e., emotional, informational, instrumental, and appraisal) based on Tardy 's (1985) and House's (1981) conceptualizations of social support. Participants were asked to provide information about their most effective consultation.

The results of this study will be discussed in two sections. The first section will comment on results of the preliminary data analysis. The second section will discuss results of the tests of individual hypotheses. Limitations of the current study and directions for future studies will then be presented.

Preliminary Analyses

Results of the preliminary analyses showed that the obtained data were not normally distributed. The dataset had a negative skew and a tall, peaked shape. The results also indicated the presence of 29 univariate outliers and 2 multivariate outliers, and fundamental assumptions of factor analytic procedures were not met. Assuming that the true shape of the distribution is normal, the sample dataset failed to accurately represent the true distribution. One possible reason for the nonnormal distribution is that participants were asked to provide information on their most effective consultation experience. Previous research has shown a positive relationship between consultant supportive behaviors and consultee perceptions of effective consultation (Hughes & DeForest 1993). Therefore, participants completing the SCSS while thinking of their most effective consultation may have also experienced

supportive behaviors from this particular consultant. This situation may have resulted in a restricted range in the obtained dataset. Given these limitations of the dataset, results of the individual hypothesis testing should be interpreted with caution.

An alternative explanation is that the negative skew may reflect the true shape of the relationship between the importance of social support and effective consultation. It may be that consultees view social support as very important to extremely important to the success of consultation. The current dataset may reflect this relationship by indicating that for most of the respondents, any and all types of support were considered to be an important aspect of the consultation process.

Individual Hypothesis Testing

Internal consistency of the SCSS. Hypothesis One stated that the statistical analysis would show that the SCSS has good internal consistency. This hypothesis was supported. The proposed individual dimensions of support (emotional, informational, instrumental, and appraisal) did have acceptable internal consistency, as the coefficient alphas ranged from .86 to .92. This finding suggests that each item on each dimension correlates closely with the other items on the same dimension and that the items are measuring a similar construct. This result should be interpreted with caution given the high overall coefficient alpha of .96, which suggests that there may be a unitary construct of support that is represented by the SCSS.

Other multidimensional measures of social support have generally reported lower estimates of internal consistency for subscales. For example, Cohen et al. (ISEL; 1985) reported Cronbach alpha estimates that ranged from .70 to .80 for subscales measuring

emotional, instrumental, companionship, and validation support. Cutrona and Russell (SPS; 1987) documented subscale consistency estimates that ranged from .65 to .76 for measures of attachment, social integration, reassurance of worth, reliable alliance, guidance, and nurturance. Vaux et al. (SS-B; 1987) reported consistency estimates of >.80 for emotional, instrumental, informational, and companionship support. Compared to other multidimensional measures of social support, the SCSS subscales yielded higher estimates of internal consistency. Thus, the SCSS may provide a more reliable measure of the dimensions of social support within school consultation compared to other measures.

Construct validity and factor analysis. Hypothesis Two stated that statistical analysis would show that the SCSS has four distinct underlying factors. Hypothesis Two was not supported. Results of the CFA showed that the obtained data did not constitute a good fit with the proposed four-factor model. There are several possible explanations for this finding. First, it may be that House's (1981) conceptualization of four functions of social support is not applicable to school consultation. A different number of support dimensions may be more applicable. Another possibility is that the questions on the SCSS that were developed to assess each of House's four dimensions were inadequate. Each of these explanations will be discussed in more detail in the following paragraphs.

The first possibility for the lack of fit between House's (1981) descriptions of support functions and the obtained data is that House's conceptualization may not be applicable to school consultation. This is not surprising, given the variety of social support conceptualizations and various types of support described in the literature (Barrera, 2000; Cohen, Gottlieb, & Underwood, 2000; Turner, 1999). House's model was selected as a basis

for this study in part because it encompasses four dimensions of support that are represented across a number of support models (Cutrona & Russell, 1990; Wills & Shinar, 2000). However, a number of different conceptualizations also have been reported in the literature (e.g., Caplan, 1974; Cobb, 1976; Hirsch, 1980; Weiss, 1974).

Support dimensions refer to the different types or functions of social support that can be received or provided. The number and types of dimensions considered to be necessary components of support vary by author. For example, Pattison (1977) described two dimensions thought to be important for effective support (i.e., instrumental and affective). Brim's (1974) conceptualization consists of material aid, guidance, and desired social interaction. Caplan (1974) and Kahn and Antonucci (1980) described the provision of material support, information, and emotional support. Schaefer, Coyne, and Lazarus (1981) reported emotional, tangible, and informational dimensions as characteristics of support. Kaplan, Cassel, and Gore (1977) described tangible support, emotional support, appraisal support, and positive social interaction as important functions of support. House (1981) and Cohen, Mermelstein, Kamarck, and Hoberman (1985) described emotional, informational, instrumental, and appraisal. Weiss's (1974) model included attachment, social integration, reassurance of worth, reliable alliance, guidance and opportunity for nurturance.

Some of these conceptualizations may be more applicable to studying the effects of support within school consultation than others. Results pertaining to Research Question One suggest that three dimensions of support were found in the present study. Results of the item analysis showed that the three types of support rated to be important to consultation were *emotional*, *informational*, and *instrumental*. These results most closely correspond with

conceptualizations of support by Caplan (1974), Kahn and Antonucci (1980), and Schaefer, Coyne, and Lazarus (1981). In the next section of the Discussion, comparisons of results of the present study with conceptualizations of support that consist of three dimensions will be described.

The second possibility for the failure of the data to support a four factor conceptualization is that the items on the SCSS did not adequately assess the intended dimensions of support. For example, House's (1981) description of informational support and appraisal support are similar in that both involve the provision of information. It may be that the items designed to assess each of these dimensions were so closely related that any potential difference in responses were not discernible. In fact, the overall mean ratings on each of these dimensions were descriptively very similar. For example, the mean rating on the informational scale was 4.13 and the mean rating for the appraisal scale was 4.15. These descriptive data suggest that there was little variation among responses on the informational and appraisal support items.

Research Question One. The purpose of Research Question One was to investigate the number of underlying factors that could be extracted from the SCSS dataset. Results of the EFA showed that three factors were extracted. This finding indicates that consultees evaluated the importance of social support to effective consultation along three dimensions. Results of an item analysis procedure showed that the three factors best represented items measuring emotional, informational, and instrumental support. Based on statistical limitations described in the first section of this Discussion, the three factor solution and the dimensions of support that correspond with each factor must be interpreted with caution.

Given these cautions, the three factor solution will next be compared to theoretical conceptualizations described in the literature.

Several authors have conceptualized support as consisting of only three dimensions. For example, Caplan (1974, 1976), Kahn and Antonucci (1980), and Schaefer et al. (1981) described three dimensions considered to be important to characterize social support. In the following section, results of Research Question One will be compared to various descriptions of support reported in the literature. First, results will be compared to House's (1981) conceptualization. Then, findings will be compared to other conceptualizations of support that consist of three dimensions.

When the current findings are compared to the dimensions described by House (1981), some similarities and differences are found. For example, three of the four dimensions of House's conceptualization are represented in the dataset. As noted, the SCSS yielded factors that correspond with emotional, instrumental, and informational dimensions; however, the SCSS did not yield a factor that represented appraisal support. According to House, appraisal support is information that individuals receive from those around them that they use to evaluate themselves. Results of the present study suggest that this type of support may not be relevant to school consultation.

Caplan (1974) described the importance of social support systems for meeting the needs of individuals, including the need for interpersonal relationships, love and affection, expression of feelings, help with tasks, and assistance with dealing with emotions. According to Caplan, there are a number of sources of this support, such as personal friendships; relationships with co-workers; and professional caregivers such as doctors,

lawyers, and nurses. Caplan theorized about the importance of short-term support sources in helping individuals deal with the effects of an immediate and acute need. This latter description of support seems to be most applicable to school consultation.

Although Caplan (1974) did not report empirical evidence regarding the dimensions of support, he did theorize about its important functions. Caplan described three elements that characterize support:

> Both enduring and short-term supports are likely to consist of three elements: the significant others help the individual mobilize his psychological resources and master his emotional burdens; they share his tasks; and they provide him with extra supplies of money, materials, tools, skills, and cognitive guidance to improve his handling of his situation. (p. 6).

Caplan's (1974) elements of support correspond to the dimensions of support found in the present study. For example, Caplan's description of assisting the recipient with "mobilizing his psychological resources and mastering his emotional burdens" (p. 6) seems to involve the process of addressing the emotional and psychological needs of the individual. This description appears to correspond to *emotional support* described in the present study as the provision of empathy, caring, love, and trust. Caplan's instrumental support is represented by the idea of sharing tasks, and by the provision of money, materials, tools, and skills. This description seems to correspond to *instrumental support* described in the present study (i.e., the provision of behaviors or materials that directly help the person). Caplan did not clearly define the term "cognitive guidance" (p. 6); however, Wills and Shinar (2000) compared it to a form of informational support (i.e., the provision of information about resources, etc.). Caplan's "cognitive guidance" (p. 6) appears to correspond to *informational support* described in the present study as providing the person with information that he or she

can use in solving the problem. Thus, Caplan's descriptions of the three elements that characterize support correspond with the three functions derived from the current study.

Caplan's ideas regarding the influence of social support on physical and mental health were based on information included in early publications (e.g., Cassel, 1976) and his professional experiences working in the mental health field as a consultant (Caplan, 1974, 1976). He did not publish any work involving direct, empirical investigation of the role of social support. Notwithstanding, it is interesting that the results of the present study provide an endorsement of his conceptualization of support dimensions.

Additional conceptualizations of support as a three dimensional construct come from Schaefer et al. (1981), who included emotional, tangible, and informational support in their description. Emotional support was described as involving "intimacy, attachment, reassurance, and being able to confide in and rely on another---all of which contribute to the feeling that one is loved or cared about" (p. 385). This description corresponds to *emotional support* as defined in the present study. Schaefer et al. portrayed tangible support as a type that involves "direct aid or services and can include loans, gifts of money or goods, and provision of services such as taking car of needy persons or doing a chore for them" (p. 386). This conceptualization is comparable to the description of *instrumental support* in the present study. Finally, informational support was defined by Schaefer and his colleagues as support that "includes giving information and advice which could help a person solve a problem and providing feedback about how a person is doing" (p. 386). This conceptualization of informational support appears to combine *informational* and *appraisal support* as described in the present study.

Kahn and Antnucci (1980) described social support as interpersonal transactions that involve at least one or more of three key elements: affect, affirmation, and aid. Affect is used to describe provision of respect, liking, or love. This description corresponds to emotional support in the present study. Aid is portrayed as provision of direct assistance including materials, information, and time. This type of support corresponds to *instrumental support* in the present study. Affirmation is described as communication of acknowledgement of the appropriateness or approval of another's choices. This type of support was not found in the results of the present study.

According to House (1981), information provided in the form of appraisal support functions to improve an individual's evaluation of his or her own thoughts and behaviors. In other words, individuals collect information regarding acceptable social and personal behaviors by observing others. This information may then be used to make social comparisons. House (1981) offered an example of a work supervisor who specifies acceptable performance for a worker, who may then use that information to determine whether he or she is working within acceptable parameters. Given that consultants are not in an evaluative/supervisory position with consultees, this dimension of support may be irrelevant for school consultation effectiveness.

Results of Research Question One yielded preliminary evidence for the importance of three dimensions of support that were perceived to be important for effective consultation (i.e., emotional, instrumental, informational). These distinct types of support have not previously been directly investigated in relation to consultation; however, evidence has shown an association of each with teachers' feelings of professional burnout. Greenglass,

Burke, and Konarski (1997) documented that when teachers perceive high levels of informational, practical, and emotional types of support, they are more likely to have a positive view of their professional accomplishments. Results of this dissertation lend further support to the importance of investigating the role of emotional, instrumental, and informational support in regard to teachers' professional tasks.

Although results of the EFA indicate that three factors underlie responses on the SCSS, results from internal consistency calculations suggest an alternative explanation. For example, the high overall internal consistency of the SCSS (.96) along with the high internal consistency results for each factor suggests that the items assess a unitary construct. This evidence should be considered when developing preliminary conclusions regarding results of this study.

The finding of three, distinct factors in this study suggests the importance of conceptualizing social support as a multidimensional construct. A number of various conceptualizations of support exist in the social support literature (Barrera, 2000; Cohen, Gottlieb, & Underwood, 2000; Turner, 1999). Some authors conceptualize and assess support as a unitary construct (Procidano & Heller, 1983; Sarason, Levine, Bashame, & Sarason, 1983). Others define and measure support as a multidimensional construct (House, 1981; Tardy, 1985). Results of this dissertation research provide evidence for the importance of describing and measuring support as a multidimensional construct. Researchers are further urged to consider effects of specific dimensions of support on various outcomes. This level of analysis is important for assessing the types of support that may yield an effect as well as those that may not.

In summary, results of Research Question One showed that three factors were extracted from the SCSS dataset. Results of an item analysis procedure indicated that the three factors were best represented by items designed to assess emotional, informational, and instrumental support. This finding corresponds to various conceptualizations of support found in the literature: Caplan (1974, 1976), Kahn and Antonucci (1980), and Schaefer et al. (1981). Of these conceptualizations, the present results most closely correspond to those of Caplan and Schaefer et al., who characterized support as consisting of emotional, informational, and instrumental support.

Concurrent criterion-related validity. Hypothesis Three stated that each dimension of support would have concurrent criterion-related validity. This hypothesis was partially supported. Each dimension that had a Pearson *r* correlation coefficient of .5 or higher with the CES was considered to have acceptable concurrent validity. By this standard, Factor One (emotional) and Factor Two (informational) were shown to have good criterion-related validity but Factor Three (instrumental) was not. In general, there was some degree of correspondence between scores on the CES and scores on Factor One and Factor Two of the SCSS (i.e., participants who rated consultants as having effective interpersonal skills also rated the provision of emotional and informational support as important for effective consultation). This relationship suggests the SCSS is a valid measure of emotional and informational support in consultation, and provides tentative support for the use of the SCSS as a valid measure of social support within school consultation.

Social support has often been assessed by a set of questions developed by the researcher, rather than by an instrument with documented reliability and validity. In

addition, many existing measures of support are associated with poor psychometric properties and were designed to assess social support that occurs within the general population. These characteristics make existing social support measures generally inapplicable for use within school consultation research. However, results pertaining to Hypothesis Three provide some support for the usefulness of the SCSS for measuring some dimensions of support within school consultation.

Results pertaining to Hypothesis Three showed that participants who rate the consultant as having effective interpersonal skills also tend to rate the provision of emotional and informational support as important to effective consultation. This finding provides some support for the importance of social support for effective consultation. It also reinforces the view that it is better to examine individual social support dimensions rather than support as a unitary or global concept. Some dimensions of support may be viewed by consultees as important for effective consultation, while others may be viewed as less important.

Theoretical construct validity. Hypothesis Four stated that the SCSS would have an acceptable level of theoretical construct validity. This hypothesis was not supported. Although the relationships were statistically significant, the magnitude of the correlations was not strong enough to meet the criteria for estimating an acceptable level of theoretical construct validity.

One possible explanation for this finding is that the theoretical relationship between social support and consultant effectiveness is not strong enough to establish construct validity. Results of previous studies regarding effects of support on consultation process outcomes have suggested a moderately strong relationship between consultee satisfaction,

progress toward problem resolution, and perceived consultant effectiveness (Horton & Brown, 1990; Hughes & DeForest, 1993; Maitland et al., 1985). The criterion for establishing construct validity requires evidence of a strong relationship between the measures. By one standard, the correlation coefficient must be .70 or higher (Nunnally & Bernstein, 1994). The obtained correlations for the present study were .47 (Factor 1), .26 (Factor 2), and .26 (Factor 3) indicating low to moderately strong relationships.

Although these correlations between factors extracted from the SCSS dataset and responses on the CEF were not strong enough to establish construct validity, findings were somewhat consistent with previous research. For example, Factor One (emotional) had a moderately strong correlation with responses on the CEF. Along these lines, Horton and Brown (1990) reported a moderate correlation (r = .47) between consultants' supportive, verbal messages and consultees' perceptions of consultant effectiveness. Hughes and DeForest (1993) reported a moderate correlation (r = .46) between CEF scores and supportive verbalizations. Maitland et al. (1985) reported a moderate relationship between consultant facilitativeness (e.g., empathic understanding, positive regard, and congruence) and various indicators of consultation success. The indicators included client behavior change (r = .34), consultee satisfaction (r = .55), resolution of the problem (r = .52), and professional growth (r = .43). Thus, the correlation coefficient between Factor One of SCSS and the CEF (r = .47) is consistent with previous findings. Taken together, these results provide some evidence regarding the positive effect social support has on perceptions of consultation effectiveness.

Having discussed the findings in relation to the four hypotheses, attention is now turned toward two additional perspectives on the study's results. Following this discussion, limitations, future research directions, and conclusions are offered.

Importance of Social Support to Effective Consultation

In this study, support was consistently rated by consultees as *very important* or *extremely important* to successful consultation. This finding indicates that consultees view the provision of social support as critical for successful consultation in the school setting. This result also corresponds to research by Maitland et al. (1985) and Horton and Brown (1990). For example, Maitland et al. reported that the consultant's facilitative interpersonal skills were significantly associated with consultee perceptions of effective consultation and with overall consultee satisfaction. Horton and Brown reported that when conditions of empathy, warmth, and positive regard are perceived, consultees indicate higher satisfaction, report experiencing professional growth, and make advances toward problem resolution.

Limitations

The purpose of this research was to develop and assess preliminary psychometric properties of a measure of social support for use in school consultation research. Understandably, there were several limitations to this research and they will be discussed next.

Instructions in the response packet asked participants to think about the most effective consultation they had participated in and to provide ratings based on that consultation. Indirect evidence has suggested that supportive behaviors have been associated with consultation effectiveness (Hughes & DeForest, 1993), ratings of consultee satisfaction

(Horton & Brown, 1990), and problem resolution (Maitland et al., 1985). This relationship suggests that effective consultation is related to levels of satisfaction among consultees. Asking participants to base ratings on the most effective consultation may have led to decreased variability in the response set. Future researchers studying the role of social support within consultation are thus advised to include a less restrictive consultation situation.

The five point Likert response scale on the SCSS may have resulted in decreased variability in the obtained dataset and, in fact, the distribution of responses had a restricted range and a negative skew. Restricted range in datasets functions to attenuate factor loadings in exploratory factor analytic procedures and results in unreliable chi square statistics in confirmatory factor analytic procedures. As a result of these statistical limitations, the dataset failed to meet standard assumptions for factor analytic procedures. Thus, as noted previously, the results must be interpreted with caution.

Results of the item analysis procedure suggested that the extracted factors best represented emotional, informational, and instrumental support dimensions. As noted previously, this interpretation must be considered with caution given the statistical limitations of this study. For example, it was noted in the Results section that the third extracted factor (instrumental support) was more difficult to interpret compared to the first two as it consisted of items that represented all four definitional types of social support described by House (1981). This is a limitation to the present study in that the third factor contains a mixture of various items and does not clearly represent one, distinct dimension of support. Although results suggest the importance of three dimensions of support to consultation, statistical

limitations such as those related to the instrumental factor, indicate that this conclusion is questionable and further study is clearly needed.

In this study, 967 surveys were considered to have been received by potential respondents. Of these, 192 surveys were completed and returned for a response rate of 19.86%. Although the obtained response rate is in line with previous research with teacher samples (e.g., Erchul, Raven & Whichard, 2001), the rate falls below that expected based on other samples. The relatively low response rate is therefore an important limitation to this study. A variety of factors may have influenced this rate. For example, there was a large total number of items on the survey, which may have discouraged some potential respondents from completing the form. Some potential participants may have considered this number of questions to be too time consuming. This fact may have led to a discouraging yield of only 110 usable surveys. Another possible factor is that this was a pen and paper based response format. Given the increased reliance on technology in today's society, a paper format may have been judged as being too time consuming and inconvenient to potential responders. Finally, the survey was mailed to potential respondents' home addresses. Potential participants may have preferred to have been contacted through their professional organizations and contact information.

The number of returned surveys from participants who had never worked with a school psychologist was higher than expected. Prior consultation research based on a mail survey methodology has reported that 20% of the teacher sample indicated that they had no prior consultation experience with a school psychologist (Erchul, Raven, & Whichard, 2001). Of the returned surveys in the present study, 31% of respondents indicated that they had

never worked with a school psychologist in a consultation setting. Given findings such as these, school psychologists should be prepared for expanding their roles to include more consultation and should accept opportunities as they arise to engage teachers in consultation (Fagan & Wise, 2000).

This study was based on a survey methodology in which participants were asked to respond to questions based on personal perceptions and recall of specific behaviors and conversations. Effectiveness of consultation and problem solving efforts were based on participants' subjective memory. Thus, the lack of objective data is a limitation to this study. The degree to which consultants demonstrated supportive behaviors and the effectiveness of the consultation on problem resolution were not objectively measured. Therefore, this study lacks documentation of observable, objective data to provide evidence of an association of supportive behaviors and consultation outcomes.

Directions for Future Research

This dissertation research was designed to develop a measure of social support that would be applicable for use in school consultation research and, in particular, reliability and validity properties of this measure were assessed. This research was an initial and necessary step for studying the role of social support within school consultation. It is clear that further refinement of the SCSS and additional psychometric data will be needed prior to its use in the investigation of the role of support in consultation.

The results of this study indicated that the distribution had several statistical limitations including a negatively skewed distribution with restricted range. Future studies should take steps to acquire a more normal distribution. One way to address this is by

changing the consultation experience that participants are asked to think about when completing the instrument. For example, participants may be asked to consider the most recent consultation they engaged in rather than the most effective. This situation may result in more variability in the constructs associated with consultation, such as supportive behaviors. Additionally, an expanded Likert response scale that provides a greater number of response options may improve the variability of the resulting distribution.

An additional change in methodology may also result in increased variability in the response set. This study was based on a mail survey research design and included measures of teacher perception of consultant effectiveness. Methodology that includes an objective indicator of outcome may be beneficial in future studies. Possible indicators could include direct observation and evaluation of consultee behavior change or of client behavior change and/or academic improvement. This type of methodology would provide direct evidence of the effect of variables within the consultation process and may result in a more normal distribution.

It may be helpful to collect qualitative data to help refine the SCSS. The methodology for this could be similar to that utilized by Gottlieb (1978), who asked a sample of unwed mothers for explicit descriptions of helping behaviors regarding particular difficulties. In line with this methodology, consultees could be asked to comment on what types of supportive behaviors they found to be most helpful for the success of the consultation. The responses would then be examined and categorized based on similarities and differences among types of supportive behaviors described by consultees. This information could provide supportive behaviors that were not considered previously for

inclusion in the SCSS. Additionally, consultees may be asked to describe at which step of the consultation support was the most helpful. These types of data may provide further information regarding the role of support within the consultation process.

According to the stress-buffering model, social support functions to buffer or protect individuals from the potentially negative impact of stress (Cohen & Wills, 1985). Within this model, individuals who experience strong levels of support are better able to cope with stress compared to those who experience low levels of support. Teachers have reported experiencing higher than average levels of work-related stress. Future studies involving the role of social support in consultation may include a measure of consultee stress in addition to the level of perceived social support. Statistical analysis should make comparisons among various levels of support and stress. Evidence of a statistical interaction across teacher levels of support and stress would provide information regarding the influence of support on teacher feelings of stress within consultation.

Future studies should be conducted to further refine and collect reliability and validity data for the SCSS. Based on the tentative finding of a three factor solution in the present study, items could be modified to assess three dimensions of support rather than four. In addition, items that crossload onto two factors should be examined. These modifications may result in a measure with improved construct validity. Following the revisions, additional testing as to the reliability and validity of the scale should be conducted to establish the usefulness of the measure for future use in consultation research.

This dissertation research was the first study to investigate the relationship of social support to consultation effectiveness. To date, no other research has directly investigated the

role of social support in school consultation. The results of this research showed that consultees perceive social support as being very important for effective consultation. Future studies should replicate and extend these findings in order to achieve a better understanding of the role of support in consultation.

Conclusions

The purpose of this research was to investigate the reliability and validity of a preliminary measure designed to assess the importance of social support for effective consultation. Results indicated that the SCSS has acceptable internal consistency and, to some extent, acceptable criterion-related (concurrent) validity. Results further suggested that three dimensions of support (i.e., emotional, informational, and instrumental) may be important to successful school consultation; however, this finding must be interpreted with caution due to statistical limitations. The construct validity of the SCSS was not supported in this study.

Results of this study have important implications. First, three types of support (i.e., emotional, instrumental and informational) appear to be important for effective school consultation and should be explored further. Second, this study represents the first step in creating and evaluating a measure of social support for school consultation. Future studies should be conducted to replicate and expand findings of the role of social support within consultation.

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Appendix A

Frequency of Social Support Measures Referenced in Seven Review Articles

Appendix A

Frequency of Social Support Measures Referenced in Seven Review Articles

Support Measure	Review Article						
	Heitzmann & Kaplan (1988)	Orth-Gomer & Unden (1987)	Procidano (1997)	Sarason et al. (1987)	Vaux (1992)	Wills & Shinar (2000)	Winemiller et al. (1993)
Arizona Social Support Interview Schedule, (ASSIS); Barrera, 1981	X		X		X	X	
Broadhead Questionnaire; Broadhead, 1982		X					
Diabetes Family Behavior Checklist (DFBC); Schafer, McCaul, & Glasgow, 1984	X						
Daily Interaction Rating Form (DIRF); Hirsch, 1979					X		
Family Relationship Index (FRI); Billings & Moos, 1982	X						
Family Environment Scale (FES); Moos & Moos, 1981				X		X	X

	Heitzmann & Kaplan (1988)	Orth-Gomer & Unden (1987)	Procidano (1997)	Sarason et al. (1987)	Vaux (1992)	Wills & Shinar (2000)	Winemiller et al. (1993)
Gore Social Support Index (GSSI): Gore, 1978	X						
Interpersonal Support Evaluation List (ISEL); Cohen & Hoberman, 1983	X	X	X	X	X	X	X
Interview Schedule for Social Interaction (ISSI); Henderson, Duncan-Jones, Byrne, & Scott, 1980	X	X		X		X	X
Inventory of Socially Supportive Behaviors (ISSB); Barrera, Sandler, & Ramsay, 1981	X	X	X	X	X		X
Kaplan's Social Support Vignettes (SSV); Kaplan, 1977	X						

	Heitzmann & Kaplan (1988)	Orth-Gomer & Unden (1987)	Procidano (1997)	Sarason et al. (1987)	Vaux (1992)	Wills & Shinar (2000)	Winemiller et al. (1993)
Norbeck Social Support Questionnaire (NSSQ), Norbeck, Lindsey, & Carrieri, 1981	X						
Perceived Social Support From Family & Friends (PSS-Fa and –Fr); Procidano & Heller, 1983	X	X	X	X		X	X
Personal Resource Questionnaire (PRQ); Brandt & Weinert, 1981	X						
Quantitative Social Support Index (QSSI); Holahan & Moos, 1982	X						
Satisfaction with Social Network Scale (SSNS); Stokes, 1983	X						
Berkman's Social Network Inventory (BSNI); Berkman & Syme, 1979		X					X

	Heitzmann & Kaplan (1988)	Orth-Gomer & Unden (1987)	Procidano (1997)	Sarason et al. (1987)	Vaux (1992)	Wills & Shinar (2000)	Winemiller et al. (1993)
Social Network Interaction Index (SNII); Orth-Gomer & Johnson, 1985		X					
Social Network List (SNL); Hirsch, 1979					X		X
Social Network List (SNL); Stokes, 1983	X						
Social Relationships Scale (SRS); McFarlane, Neale, Orman, Roy, & Steiner, 1981	X	X			X		
Social Stress and Support Interview (SSSI); Jenkins, Mann, & Belsey, 1981	X						
Social Support Index (SSI); Wilcox, 1981	X	X					
Social Support Network Index (SSNI); Fischer, 1982					X		

	Heitzmann & Kaplan (1988)	Orth-Gomer & Unden (1987)	Procidano (1997)	Sarason et al. (1987)	Vaux (1992)	Wills & Shinar (2000)	Winemiller et al. (1993)
Social Support Questionnaire (SSQ); Schaefer, Coyne, & Lazarus, 1981	X						
Social Support Questionnaire (SSQ); Wilcox, 1981	X						
Social Support Satisfaction Scale (SSSS); Blaik & Genser, 1980	X						
Social Support Scale (SSS); Dean, Lin, & Ensel, 1981	X	X					
Social Provisions Scale (SPS); Cutrona & Russel, 1984					X	X	X
Stress Questionnaire (SQ); Dunkel-Scheter, Folkman, & Lazarus, 1987			X				
Social Relationships and Activity (SRA); House, Robbins, & Metzner, 1982		X					

	Heitzmann & Kaplan (1988)	Orth-Gomer & Unden (1987)	Procidano (1997)	Sarason et al. (1987)	Vaux (1992)	Wills & Shinar (2000)	Winemiller et al. (1993)
Social Support Appraisals Scale (SSA); Vaux, Phillips, Holly, Thompson, Williams, & Stewart, 1986					X	X	
Social Support Behaviors Scale (SSB); Vaux, Riedel, & Stewart, 1987					X	X	
Social Support Inventory (SSI); Bell, LeRoy, Stepenson, 1982		X					
Social Support Network Inventory (SSNI); Fischer, 1982					X		
Social Support Questionnaire (SSQ); Macdormot, 1985		X					
Social Support Questionnaire (SSQ); Norbeck, Lindsey, & Carrieri, 1981						X	X

	Heitzmann & Kaplan (1988)	Orth-Gomer & Unden (1987)	Procidano (1997)	Sarason et al. (1987)	Vaux (1992)	Wills & Shinar (2000)	Winemiller et al. (1993)
Social Support Questionnaire (SSQ); Sarason, Levine, Basham, & Sarason, 1983		X	X	X	X	X	
Social Support Scale (SSS); Blazer, 1982		X					
University of California LA – Social Support Index (UCLA-SSI); Dunkel-Scheter et al., 1987			X			X	
Work Relationship Index (WRI); Billings & Moos, 1982	X				X		
Work Social Support (WSS); LaRocco, House, & French, 1980						X	

Appendix B

Description of Selected Social Support Measures

Appendix B

Descriptions of Selected Social Support Measures

Scale	Description
Social Support Questionnaire (SSQ)	
Author(s)/Year	Sarason, Levine, Bashame, & Sarason (1983)
Measure category	Network & perceived
Source	Family and friends
Description	27 items, respondents rate number (*N*) and satisfaction (*S*) for each situation
Subscales	One for Number and One for Satisfaction
Reliability	Test-retest for $N = .90$, $S = .83$ Internal consistency for $N = .97$, $S = .94$
Validity	Construct: *N* and MAACL, $r = -.43$, *S* and MAACL Lack of protection scale, $r = -.22$
Theory	Author's definition of support
Validation Sample	College students

Scale	Description
Interview Schedule for Social Interaction (ISSI)	
Author(s)/Year	Henderson, Duncan-Jones, Byrne, & Scott (1980)
Measure category	Network & perceived
Source	All sources
Description	52 items, interview format
Subscales	Emotional, attachment, instrumental
Reliability	Test-retest = .75 to .79 Internal consistency = .67 to .81
Validity	Construct: Modest correlations with the Eysenck Personality Inventory *r* = .03 to .31 with neuroticism/extraversion subscales
Theory	Weiss's (1974) definition of support
Validation Sample	Community sample

Scale	Description
Arizona Social Support Interview Schedule (ASSIS)	
Author(s)/Year	Barrera (1981)
Measure category	Network & perceived (available & enacted, satisfaction with (*S*), need for (*N*) support)
Source	All sources
Description	Interview format
Subscales	Emotional, instrumental, informational, companionship, validation
Reliability*	Test-retest: Network = .88, *S* = .69, *N* = .80 Internal consistency: *S* = .33, *N* = .52
Validity*	Concurrent: *r* = .32 with ISSB for network size
Theory	Caplan (1976) and Hirsch (1979) concepts of support
Validation Sample	College students and pregnant teenagers

* Data reported for perceived available support, no psychometric data reported for enacted version

Scale	Description
Family Environment Scale (FES)	
Author(s)/Year	Moos & Moos (1981)
Measure category	Perceived (available)
Source	Family
Description	Questionnaire, yes/no format
Subscales	Unpublished
Reliability	Unpublished
Validity	Unpublished
Theory	Unpublished
Validation sample	Unpublished

Scale	Description
Interpersonal Support Evaluation List (ISEL)	
Author(s)/Year	Cohen & Hoberman (1983)
Measure category	Perceived (available)
Source	All sources
Description	48 items, questionnaire format
Subscales	Tangible, belonging, self-esteem, appraisal
Reliability	Test-retest = .70 to .90 Internal consistency = .77 to .90
Validity	Construct: *r* = .46 with ISSB
Theory	Author's conceptualization of support
Validation sample	College sample

Scale	Description
Perceived Social Support for Family (PSS-Fa) and Friends (PSS-Fr)	
Author(s)/Year	Procidano & Heller (1983)
Measure category	Perceived (available)
Source	One version for family and one version for friends
Description	20-items, yes/no format
Subscales	One for family, one for friends
Reliability	Test-retest = .83 Internal consistency, Fa = .90, Fr = .88
Validity	Construct: Correlations with measures of life stress and symptomatology (r = .17 to .29) and social network variables (r = .17 to .58)
Theory	Author's conceptualization of support
Validation sample	College sample

Scale	Description
Social Provision Scale (SPS)	
Author(s)/Year	Russell & Cutrona (1986)
Measure category	Perceived (available)
Source	Family and friends
Description	Questionnaire format
Subscales	Attachment, social integration, reassurance of worth, reliable alliance, guidance, nurturance
Reliability	Internal consistency, .61 to .80
Validity	Unpublished manuscript
Theory	Unpublished manuscript
Validation sample	College sample and older adults

Scale	Description
Social Support Appraisals (SS-A) Scale	
Author(s)/Year	Vaux, Phillips, Holly, Thomson, Williams, & Stewart (1986)
Measure category	Perceived (available)
Source	Family and friends
Description	Questionnaire format
Subscales	One for family, one for friends
Reliability	Internal consistency = .84 to .90
Validity	Convergent and divergent: Low to moderate relationship with measures of network satisfaction (r = .17 - .62), Low to moderate relationship with measures of support appraisal [r = .16 - .82: Perceived Social Support (PSS; Procidano & Heller, 1983); Family Relations Inventory (FRI; Holahan & Moos, 1982); Social Support Questionnaire, (SSQ; Sarason et al., 1983); Provision of Social Relations Scale (PRS; Turner et al., 1983); Revised Kaplan Scale (RKS; Turner et al., 1983)], low to moderate relationship with measures of stress and well-being (r = .16 - .42), low to moderate relationship with measures of personality (r = .16 - .72).
Theory	Cobb's (1976) conceptualization of support
Validation sample	College and community samples

Scale	Description
Social Support Behavior (SS-B) Scale	
Author(s)/Year	Vaux, (1982); Vaux, Riedel, & Stewart (1987)
Measure category	Designed to assess available behavior, has been adapted to assess enacted (received) behavior
Source	Family and friends
Description	45-items, respondents indicate how likely a family member of friend would perform a specific behavior, yields overall score and subscale scores
Subscales	Emotional, instrumental, informational, companionship
Reliability	Internal consistency overall = .85; subscales above .90
Validity	Concurrent: r = .17 to .42 with ISSB subscales, confirmatory factor analysis showed that all items except one loaded significantly on the factor it was intended to assess (most › .70)
Theory	Author's conceptualization of support as meta-construct
Validation sample	College students

*Statistics reported for perceived available version. More research is needed for perceived received version (Vaux, 1992).

Scale	Description
Inventory of Socially Supportive Behaviors (ISSB)	
Author(s)/Year	Barrera, Sandler, & Ramsey (1981)
Measure category	(Received) Behavior
Source	Family and friends
Description	40-items, respondents indicate frequency of receipt of behavior
Subscales	Single score, three to four principal components
Reliability	Test-retest = .88 Internal consistency = .93
Validity	Construct: *r* = .36 with cohesion subscale of Family Environment Scale (FES: Moos, 1975), a measure of degree of family support; *r* = .42 with Arizona Social Support Interview Schedule (ASSIS: Barrera, 1980), a measure of network size
Theory	Caplan's (1976) conceptualization of support
Validation sample	College students

Appendix C

School Consultation Support Scale (SCSS)

Appendix C

School Consultation Support Scale

The purpose of this questionnaire is to obtain information that will aid school psychologists when consulting with teachers.

In consultation, a teacher and school psychologist work together, contributing their respective professional expertise to assist children with learning and adjustment difficulties. Although consultation can occur across different settings, it typically involves identifying a child's behavior that is of concern; assessing where, when, why, and under what conditions the behavior occurs; and jointly developing one or more interventions that address the identified behavior. The school psychologist and teacher actively continue this process until an acceptable intervention plan is developed. Afterwards, the plan is put into action by those who are identified in the plan as responsible for one or more parts of the intervention.

Please think about the **most effective** consultation you participated in with a school psychologist and answer the following questions about that consultation. Please do not directly identify the consultant.

1. At the time of this particular consultation, what grade level were you teaching?

   _____

2. What was the consultant's gender? _____ Male _____Female

3. What was the approximate age of the consultant? _____

4. To what racial/ethnic group did the consultant belong? _____

Please continue with the next section of this questionnaire. On the following pages you will find statements describing behaviors a school psychologist consultant may demonstrate when consulting with a teacher. You are asked to respond to each statement while thinking about the most effective consultation you participated in with a school psychologist.

****

Note: If you **never** have worked with a school psychologist in a consultative situation, please place a check here: _____

We ask, then, that you do not complete this questionnaire but instead return all materials in the postpaid envelope. Thank you.

Please use the following statements to rate the consultant who facilitated your **most effective** consultation. Please use the scale below as a guide.

1	2	3	4	5	6	7
strongly disagree			neutral			strongly agree

5.	The consultant was generally helpful.	1	2	3	4	5	6	7
6.	The consultant offered useful information.	1	2	3	4	5	6	7
7.	The consultant's ideas as to the primary goals of schools were similar to my own ideas.	1	2	3	4	5	6	7
8.	The consultant helped me find alternative solutions to problems.	1	2	3	4	5	6	7
9.	The consultant was a good listener.	1	2	3	4	5	6	7
10.	The consultant helped me identify useful resources.	1	2	3	4	5	6	7
11.	The consultant fit well into the school's environment.	1	2	3	4	5	6	7
12.	The consultant encouraged me to consider a number of points of view.	1	2	3	4	5	6	7
13.	The consultant viewed his/her role as a collaborator rather than an expert.	1	2	3	4	5	6	7
14.	The consultant helped me find ways to apply the content of our discussions to specific pupil or classroom situations.	1	2	3	4	5	6	7

.

1	2	3	4	5	6	7
strongly disagree			neutral			strongly agree

15.	The consultant was able to offer assistance without completely "taking over" the management of problems	1	2	3	4	5	6	7
16.	I would request services from this consultant again, assuming that other consultants were available.	1	2	3	4	5	6	7

Please indicate **how important** each of the following activities described in these statements was to the success of this consultation by circling the appropriate number to the right of each statement.

1	2	3	4	5
extremely unimportant	very unimportant	neither important or unimportant	very important	extremely important

The consultant…

17.	Did not judge me.	1	2	3	4	5
18.	Gave me advice about the situation.	1	2	3	4	5
19.	Described an intervention I had not heard of.	1	2	3	4	5
20.	Acknowledged my efforts for helping to develop a solution.	1	2	3	4	5
21.	Provided a demonstration of how an intervention should work.	1	2	3	4	5
22.	Listened to my concerns.	1	2	3	4	5
23.	Gave me hope.	1	2	3	4	5
24.	Gave constructive feedback.	1	2	3	4	5

1 extremely unimportant	2 very unimportant	3 neither important or unimportant	4 very important	5 extremely important

The consultant…

25.	Told me more about the type of problem my student was having.	1	2	3	4	5
26.	Showed me how to do something I didn't know how to do.*	1	2	3	4	5
27.	Made me feel like I was an equal contributor to the consultation process.	1	2	3	4	5
28.	Made me feel confident.	1	2	3	4	5
29.	Respected me.	1	2	3	4	5
30.	Shared problem-solving strategies with me.	1	2	3	4	5
31.	Asked someone else for assistance on my behalf.	1	2	3	4	5
32.	Made me feel like I could successfully carry out the intervention.	1	2	3	4	5
33.	Encouraged me.	1	2	3	4	5
34.	Provided me with feedback.	1	2	3	4	5
35.	Helped me determine the success rate of the intervention.	1	2	3	4	5
36.	Gave me ideas for improving the situation.	1	2	3	4	5
37.	Understood how I was feeling.	1	2	3	4	5
38.	Helped me to pick the "best" solution.	1	2	3	4	5

1 extremely unimportant	2 very unimportant	3 neither important or unimportant	4 very important	5 extremely important

The consultant…

39.	Helped me to prioritize problems.	1	2	3	4	5
40.	Showed concern if I did something incorrectly.	1	2	3	4	5
41.	Acknowledged my efforts.	1	2	3	4	5
42.	Suggested how I could find out more about a situation.*	1	2	3	4	5
43.	Told me how to do something better.	1	2	3	4	5
44.	Expressed interest in my feelings.	1	2	3	4	5
45.	Established a trusting relationship with me.	1	2	3	4	5
46.	Gave me helpful/relevant written information.	1	2	3	4	5
47.	Provided information about other resources.	1	2	3	4	5
48.	Helped me “brainstorm” possible problem solutions.	1	2	3	4	5
49.	Reminded me of something I forgot to do.	1	2	3	4	5
50.	Developed materials used for intervention purposes.	1	2	3	4	5
51.	Suggested a way I might do something.*	1	2	3	4	5
52.	Addressed my emotional issues.	1	2	3	4	5

1 extremely unimportant	2 very unimportant	3 neither important or unimportant	4 very important	5 extremely important

The consultant…

53.	Gave me a summary of the consultation goals.	1	2	3	4	5
54.	Offered a helpful service to me while we were consulting.	1	2	3	4	5
55.	Helped me figure out what I wanted to do.*	1	2	3	4	5
56.	Expressed confidence in my ability to develop a solution to the problem.	1	2	3	4	5
57.	Expressed affection.**	1	2	3	4	5
58.	Helped me figure out what was going on.*	1	2	3	4	5
59.	Scheduled meetings that were convenient for my schedule.	1	2	3	4	5
60.	Made me more confident in my skills as a teacher.	1	2	3	4	5
61.	Was warm.**	1	2	3	4	5
62.	Helped me to understand the nature of the problem.	1	2	3	4	5
63.	Acknowledged the information and skills that I brought to the consultation process.	1	2	3	4	5
64.	Encouraged me to “vent” my feelings and frustration.	1	2	3	4	5

1 extremely unimportant	2 very unimportant	3 neither important or unimportant	4 very important	5 extremely important

The consultant…

65.	Told me about the available choices and options.*	1	2	3	4	5
66.	Explained results of a classroom observation to me.	1	2	3	4	5
67.	Was empathetic.**	1	2	3	4	5
68.	Helped me to think about a problem.*	1	2	3	4	5
69.	Acknowledged my own expertise in the classroom.	1	2	3	4	5
70.	Answered my questions.	1	2	3	4	5
71.	Told me I was doing a good job.	1	2	3	4	5
72.	Explained the purpose/goals of consultation to me.	1	2	3	4	5
73.	Described a helpful procedure.	1	2	3	4	5
74.	Was attentive.**	1	2	3	4	5
75.	Allowed me to express my viewpoints.	1	2	3	4	5
76.	Supported my active participation.	1	2	3	4	5
77.	Explained how a similar problem was solved in the past.	1	2	3	4	5
78.	Gave me suggestions for handling a a difficult situation.	1	2	3	4	5

Please continue thinking about your **most effective** consultation with a school psychologist and complete the following items. Please rate the importance of the consultant's behaviors and characteristics to the effectiveness of the consultation.

1 extremely unimportant	2 very unimportant	3 neither important or unimportant	4 very important	5 extremely important

The consultant…

79.	Was empathetic.	1	2	3	4	5
80.	Was encouraging.	1	2	3	4	5
81.	Expressed affection (supportive).	1	2	3	4	5
82.	Showed respect for the consultee.	1	2	3	4	5
83.	Was warm.	1	2	3	4	5
84.	Maintained an "I'm OK- You're OK" Position.	1	2	3	4	5
84.	Was interested (concerned).	1	2	3	4	5
85.	Was approachable.	1	2	3	4	5
86.	Was accepting (non-judgmental).	1	2	3	4	5
87.	Was tolerant.	1	2	3	4	5
88.	Was tactful.	1	2	3	4	5
89.	Was collaborative (shared responsibility).	1	2	3	4	5
90.	Was pleasant.	1	2	3	4	5
91.	Had a positive attitude.	1	2	3	4	5
92.	Self-disclosed.	1	2	3	4	5
93.	Encouraged ventilation.	1	2	3	4	5

1 extremely unimportant	2 very unimportant	3 neither important or unimportant	4 very important	5 extremely important

The consultant…

94.	Was open-minded.	1	2	3	4	5
95.	Gave and received feedback.	1	2	3	4	5
96.	Was flexible.	1	2	3	4	5
97.	Was a team player.	1	2	3	4	5
98.	Was trustworthy.	1	2	3	4	5
99.	Was effective at establishing rapport.	1	2	3	4	5
100.	Was willing to get involved.	1	2	3	4	5
101.	Was attentive.	1	2	3	4	5

Thank you for completing the School Consultation Support Scale. To help us understand your responses more completely, we ask that you provide us with some additional information.

102. To what racial/ethnic group do you belong? _____

103. What is your highest earned degree? _____

104. How many years of teaching experience do you have? _____

105. What is your gender? _____ Male _____Female

106. What is your age? _____

107. What grade level are you currently teaching? _____

Thank you for completing the School Consultation Support Scale.

Appendix D

Descriptive Statistics by Item for the SCSS

Appendix D

Table A

Descriptive Statistics by Item for the SCSS

Item Number	Mean (*SE*)	Median	Standard Deviation	Skewness	Kurtosis
17	4.31 (.073)	4.00	.766	-1.10	1.85
18	4.41 (.069)	5.00	.722	-1.56	4.14
19	3.98 (.083)	4.00	.866	-.803	1.08
20	4.32 (.076)	4.00	.797	-1.28	2.12
21	3.81 (.088)	4.00	.914	-.543	.262
22	4.67 (.064)	5.00	.667	-2.74	9.79
23	4.38 (.072)	5.00	.755	-1.28	2.40
24	4.45 (.072)	5.00	.751	-1.63	3.68
25	4.36 (.080)	5.00	.834	-1.44	2.27
26	3.84 (.086)	4.00	.89	-.56	.437
27	4.40 (.073)	5.00	.759	-1.35	2.49
28	4.19 (.078)	4.00	.810	-.900	1.05
29	4.55 (.060)	5.00	.631	-1.321	1.69
30	4.42 (.066)	5.00	.684	-.949	.435
31	3.66 (.092)	4.00	.964	-.341	.016
32	4.30 (.071)	4.00	.739	-1.112	2.335

Table A (continued). *Descriptive Statistics by Item for the SCSS*

Item Number	Mean (*SE*)	Median	Standard Deviation	Skewness	Kurtosis
33	4.32 (.074)	4.00	.768	-.749	-.483
34	4.41 (.065)	4.00	.683	-1.28	2.37
35	3.98 (.080)	4.00	.839	-.637	.494
36	4.31 (.066)	4.00	.690	-.672	.034
37	4.17 (.081)	4.00	.848	-.622	-.611
38	4.17 (.068)	4.00	.708	-.189	-.976
39	4.15 (.078)	4.00	.815	-.696	-.058
40	3.56 (.093)	4.00	.966	-.266	-.081
41	4.24 (.082)	4.00	.860	-1.197	1.922
42	4.05 (.076)	4.00	.798	-.306	-.788
43	3.80 (.075)	4.00	.780	-.347	.512
44	3.96 (.084)	4.00	.881	-.341	-.817
45	4.50 (.067)	5.00	.702	-1.21	.740
46	4.07 (.085)	4.00	.889	-.870	.581
47	4.02 (.080)	4.00	.839	-.706	.616
48	4.27 (.074)	4.00	.777	-1.227	2.428
49	3.52 (.094)	3.32	.986	-.431	.275

Table A (continued). *Descriptive Statistics by Item for the SCSS*

Item Number	Mean (*SE*)	Median	Standard Deviation	Skewness	Kurtosis
50	3.58 (.100)	4.00	1.048	-.604	.158
51	4.06 (.077)	4.00	.803	-1.19	2.82
52	3.36 (.101)	3.00	1.05	-.221	-.233
53	3.72 (.103)	4.00	1.07	-.601	.162
54	3.88 (.079)	4.00	.825	-.480	.366
55	4.01 (.083)	4.00	.866	-.715	.444
56	4.16 (.087)	4.00	.904	-1.004	1.408
57	2.85 (.107)	3.00	1.112	-.115	-.396
58	4.03 (.081)	4.00	.844	-1.183	2.259
59	4.15 (.079)	4.00	.826	-.582	-.500
60	4.00 (.085)	4.00	.892	-.478	-.276
61	3.77 (.095)	4.00	.997	-.380	-.642
62	4.26 (.068)	4.00	.712	-.576	-.253
63	4.25 (.069)	4.00	.722	-413	-.989
64	3.63 (.102)	3.00	1.07	-.285	-.425
65	4.18 (.070)	4.00	.735	-.589	.011
66	4.03 (.093)	4.00	.967	-1.184	1.679
67	3.89 (.089)	4.00	.932	-.634	.273

Table A (continued). *Descriptive Statistics by Item for the SCSS*

Item Number	Mean (*SE*)	Median	Standard Deviation	Skewness	Kurtosis
68	4.03 (.078)	4.00	.810	-.476	-.324
69	4.23 (.076)	4.00	.789	-.664	-380.
70	4.54 (.060)	5.00	.631	-1.507	3.133
71	3.60 (.099)	4.00	1.037	-.389	-.017
72	3.83 (.084)	4.00	.877	-.593	.630
73	4.04 (.068)	4.00	.706	-.213	-.458
74	4.48 (.059)	5.00	.618	-.752	-.397
75	4.42 (.060)	4.00	.628	-.614	-.553
76	4.37 (.063)	4.00	.662	-.569	-.666
77	3.84 (.09)	4.00	.938	-.965	1.04
78	4.28 (.061)	4.00	.640	-.332	-.669

Appendix E

Univariate Test of Normality for Each Item of the SCSS

Appendix E

Table B

Univariate Test of Normality for Each Item of the SCSS

Item number	Shapiro-Wilk statistic	*df*	*p*
17	.768	109	<.001
18	.716	109	<.001
19	.836	109	<.001
20	.762	109	<.001
21	.870	109	<.001
22	.543	109	<.001
23	.744	109	<.001
24	.706	109	<.001
25	.739	109	<.001
26	.858	109	<.001
27	.732	109	<.001
28	.804	109	<.001
29	.683	109	<.001
30	.746	109	<.001
31	.871	109	<.001
32	.767	109	<.001

Table B (continued). *Univariate Test of Normality for Each Item of the SCSS*

Item number	Shapiro-Wilk statistic	*df*	*p*
33	.773	109	<.001
34	.712	109	<.001
35	.845	109	<.001
36	.780	109	<.001
37	.810	109	<.001
38	.802	109	<.001
39	.819	109	<.001
40	.885	109	<.001
41	.775	109	<.001
42	.835	109	<.001
43	.845	109	<.001
44	.849	109	<.001
45	.705	109	<.001
46	.829	109	<.001
47	.839	109	<.001
48	.771	109	<.001
49	.879	109	<.001
50	.880	109	<.001

Table B (continued). *Univariate Test of Normality for Each Item of the SCSS*

Item number	Shapiro-Wilk statistic	*df*	*p*
51	.785	109	<.001
52	.900	109	<.001
53	.893	109	<.001
54	.853	109	<.001
55	.843	109	<.001
56	.830	109	<.001
57	.885	109	<.001
58	.793	109	<.001
59	.821	109	<.001
60	.837	109	<.001
61	.878	109	<.001
62	.795	109	<.001
63	.787	109	<.001
64	.866	109	<.001
65	.809	109	<.001
66	.808	109	<.001
67	.857	109	<.001
68	.840	109	<.001

Table B (continued). *Univariate Test of Normality for Each Item of the SCSS*

Item number	Shapiro-Wilk statistic	*df*	*p*
69	.803	109	<.001
70	.667	109	<.001
71	.870	109	<.001
72	.856	109	<.001
73	.820	109	<.001
74	.722	109	<.001
75	.741	109	<.001
76	.760	109	<.001
77	.834	109	<.001
78	.771	109	<.001

Appendix F

Results of Data Transformations

Appendix F

Table C

Results of Data Transformations

Type of Transformation	Test	Statistic	*p*
Squared			
	Mardia skewness	45927	<.0001
	Mardia kurtosis	3.59	.0003
Cubed			
	Mardia skewness	45223	<.0001
	Mardia kurtosis	2.39	.0170
Raised to fourth power			
	Mardia skewness	45607	<.0001
	Mardia kurtosis	3.25	.0011
Raised to tenth power			
	Mardia skewness	49125	<.0001
	Mardia kurtosis	11.18	<.0001
Natural Log			
	Mardia skewness	53608	<.0001
	Mardia kurtosis	17.39	<.0001

Table C (continued). *Results of Data Transformations*

Type of Transformation	Test	Statistic	*p*
Log 10			
	Mardia skewness	45537	<.0001
	Mardia kurtosis	2.94	.0033
Cubed root			
	Mardia skewness	51639	<.0001
	Mardia kurtosis	13.86	<.0001
Reflected and squared			
	Mardia skewness	55359	<.0001
	Mardia kurtosis	20.93	<.0001
Reflected and cubed			
	Mardia skewness	63838	<.0001
	Mardia kurtosis	36.92	<.0001
Reflected and raised to tenth power			
	Mardia skewness	93780	<.0001
	Mardia kurtosis	96.71	<.0001

Table C (continued). *Results of Data Transformations*

Type of Transformation	Test	Statistic	*p*
Reflected and square root taken			
	Mardia skewness	46416	<.0001
	Mardia kurtosis	4.43	<.0001
Reflected and cube root taken			
	Mardia skewness	45982	<.0001
	Mardia kurtosis	3.66	.0003
Reflected and log 10			
	Mardia skewness	53608	<.0001
	Mardia kurtosis	17.39	<.0001

Appendix G

Pattern Matrix for Forced Three Factor Exploratory Factor Analysis

Appendix G

Table D

Pattern Matrix for Forced Three Factor Exploratory Factor Analysis

Item number	Factor one	Factor two	Factor three
17	.233	-.267	.606
18	.007	-.067	.678
19	-.140	.348	.318
20	.300	-.240	.657
21	-.361	.591	.141
22	.013	-.163	.922
23	.128	.021	.676
24	-.161	.118	.823
25	-.248	.380	.566
26	-.281	.810	.196
27	.629	-.179	.270
28	.742	-.158	.174
29	.743	-.184	.190
30	.401	.060	.266
31	.207	.281	.174
32	.616	.086	.182
33	.646	.081	.152

Table D (continued). *Pattern Matrix for Forced Three Factor Exploratory Factor Analysis*

Item number	Factor one	Factor two	Factor three
34	.319	.270	.170
35	.084	.707	.006
36	.277	.505	.043
37	.697	.115	-.076
38	.264	.319	.221
39	.272	.478	-.052
40	.099	.612	.084
41	.818	-.094	-.028
42	.182	.655	-.066
43	.085	.723	.020
44	.726	-.046	-.014
45	.751	-.160	.171
46	.111	.521	-.061
47	.126	.668	-.140
48	.391	.354	.056
49	.082	.615	-.024
50	-.222	.541	.287
51	-.158	.641	.408
52	.289	.495	.044

Table D (continued). *Pattern Matrix for Forced Three Factor Exploratory Factor Analysis*

Item number	Factor one	Factor two	Factor three
53	-.295	.449	.243
54	-.091	.206	.597
55	.211	.170	.521
56	.712	.172	-.011
57	.371	-.030	.237
58	.254	.138	.371
59	.487	.064	-.113
60	.763	.057	-.030
61	.681	-.167	.076
62	.543	.171	.060
63	.661	.159	-.180
64	.563	-.008	.027
65	.138	.742	-.222
66	.757	-.003	-.060
67	.535	.261	.018
68	.674	.029	-.037
69	.406	.135	.121
70	.665	.025	-.119
71	.002	.771	-.305

Table D (continued). *Pattern Matrix for Forced Three Factor Exploratory Factor Analysis*

Item number	Factor one	Factor two	Factor three
72	-.032	.818	.032
73	.651	.041	.006
74	.793	-.052	-.182
75	.706	.045	-.113
76	.163	.644	-.196
77	.425	.302	-.010
78	.339	.388	-.111

Appendix H

Items that Correspond to Each Factor

Appendix H

Table E

Items that Correspond to Each Factor

Factor	Item
One	Provided a demonstration of how an intervention should work.*
One	Made me feel like I was an equal contributor to the consultation process.
One	Made me feel confident.
One	Respected me.
One	Shared problem-solving strategies with me.
One	Made me feel like I could successfully carry out the intervention.
One	Encouraged me.
One	Provided me with feedback.
One	Understood how I was feeling.
One	Acknowledged me efforts.
One	Expressed interest in my feelings.
One	Established a trusting relationship with me.
One	Helped me "brainstorm" possible problem solutions.*
One	Expressed confidence in my ability to develop a solution to the problem.
One	Expressed affection.
One	Scheduled meetings that were convenient for my schedule.
One	Made me more confident in my skills as a teacher.
One	Was warm.

*Denotes an item that loaded on two factors.

Table E (continued.) *Items that Correspond to Each Factor*

Factor	Item
One	Helped me to understand the nature of the problem.
One	Acknowledged the information and skills that I brought to the consultation process.
One	Encouraged me to "vent" my feelings and frustration.
One	Explained results of a classroom observation to me.
One	Was empathetic.
One	Helped me to think about a problem.
One	Acknowledged my own expertise in the classroom.
One	Answered my questions.
One	Described a helpful procedure.
One	Was attentive.
One	Allowed me to express my viewpoints.
One	Explained how a similar problem was solved in the past.*
One	Gave me suggestions for handling a difficult situation.*
Two	Described an intervention I had not heard of.*
Two	Provided a demonstration of how an intervention should work.*
Two	Told me more about the type of problem my student was having.*
Two	Showed me how to do something I didn't know how to do.
Two	Helped me determine the success rate of the intervention.
Two	Gave me ideas for improving the situation.

*Denotes an item that loaded onto two factors.

Table E (continued.) *Items that Correspond to Each Factor*

Factor	Item
Two	Helped me to pick the "best" solution.
Two	Helped me to prioritize problems.
Two	Showed concern if I did something incorrectly.
Two	Suggested how I could find out more about a situation.
Two	Told me how to do something better.
Two	Gave me helpful/relevant written information.
Two	Provided information about other resources.
Two	Helped me "brainstorm" possible problem solutions.
Two	Reminded me of something I forgot to do.
Two	Developed materials used for intervention purposes.
Two	Suggested a way I might do something.*
Two	Addressed my emotional issues.
Two	Gave me a summary of the consultation goals.
Two	Told me about the available choices and options.
Two	Told me I was doing a good job.*
Two	Explained the purpose/goals of consultation to me.
Two	Supported my active participation.
Two	Explained how a similar problem was solved in the past.*
Two	Gave me suggestions for handling a difficult situation.*

*Denotes an item that loaded onto two factors.

Table E (continued.) *Items that Correspond to Each Factor*

Factor	Item
Three	Did not judge me.
Three	Gave me advice about the situation.
Three	Described an intervention I had not heard of.*
Three	Acknowledged my efforts for helping to develop a solution.
Three	Listened to my concerns.
Three	Gave me hope.
Three	Gave constructive feedback.
Three	Told me more about the type of problem my student was having.*
Three	Suggested a way I might do something.*
Three	Offered a helpful service to me while we were consulting.
Three	Helped me figure out what I wanted to do.
Three	Helped me figure out what was going on.
Three	Told me I was doing a good job.*

*Denotes an item that loaded onto two factors.