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RELATIONS BETWEEN CONSULTANT CHARACTERISTICS AND MEASURES OF CONSULTATION QUALITY AND OUTCOME

BY

IAN R. MACLEOD

THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF

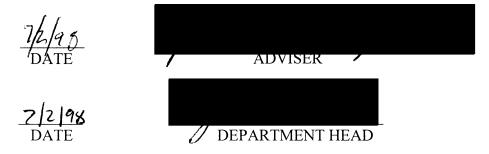
SPECIALIST IN SCHOOL PSYCHOLOGY

IN THE GRADUATE SCHOOL, EASTERN ILLINOIS UNIVERSITY

CHARLESTON, ILLINOIS

1998

I HEREBY RECOMMEND THIS THESIS BE ACCEPTED AS FULFILLING
THIS PART OF THE GRADUATE DEGREE CITED ABOVE



RELATIONS BETWEEN CONSULTANT CHARACTERISTICS AND MEASURES OF CONSULTATION QUALITY AND OUTCOME

Ian R. MacLeod

The purpose of this study was to explore school-based consultation effectiveness (as perceived by classroom teachers) and important indices of consultation quality and student outcome. Specifically, the research explored 1) important characteristics of school-based consultants using the Consultant Effectiveness Scale (CES), 2) the relations between quality of the consultation process and student outcome, and 3) the measurement similarities between the CES and the measure of consultation process quality. Questionnaires were completed by 85 teachers working in grades K-12 in a suburban area of Chicago. To participate, teachers must have engaged in a consultative relationship within the past 12 months. Consultants characteristics perceived by teachers as most effective are identified and discussed. Some indices of quality were found to be more important in effecting child outcome than others. This finding, which partially supports and contradicts previous literature, is detailed. Finally, positive relations were found between the CES and the measure of consultation quality, which may significantly contribute to existing CES research. Implications of these findings for school psychologists are provided in depth. The researcher also suggests ways in which the information may be used to improve consultative relationships with teachers and thereby, services to children.

ACKNOWLEDGMENTS

The writer wishes to thank Dr. Cheryl Somers, Dr. Kevin Jones, and Dr. Mike Havey for all their help. Thanks go to Paul H., Ryan N., Blake M., and all at Eastern Illinois University. Also, thanks to my family for all they have done. Finally, I would like to thank Michele McGonagle for not only being my wife but my best friend.

I.R.M.

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Introduction

The field of school psychology has changed dramatically in recent years. There has been a movement away from a role consisting mainly of testing to one in which skills such as consulting have become as important. As a consultant, the school psychologist works mainly with teachers in a cooperative manner developing suggestions and ideas regarding the management of certain students who may be having or causing trouble in the classroom. It is hoped that the consultation will provide answers to problems before the referral process must be started. The relationship between the consultant and consultee should be cooperative; therefore, it is essential that great care is taken in its cultivation. Problems in this relationship can compromise the integrity of the solutions reached regarding a particular problem. Of course, the child's best interests should be placed first, but problems within consulting relationships can interfere with this. In order to maintain the consultation relationship as positively as possible, it is important to examine the characteristics that make a consultant effective. Certain characteristics have been identified as describing effective consultants (Gutkin, 1980; Knoff, Hines, & Kromery, 1995; Knoff, McKenna, & Riser, 1991; Knoff, Sullivan, & Liu, 1995). It is also important to examine the consultation interactions themselves in terms of their quality and outcome.

What is a consultant?

The specific definition of a consultant is best understood when coupled with the definition of consultation. Curtis and Meyers (1985) defined consultation as "a collaborative, problem-solving process in which two professionals (i.e., a teacher and a school psychologist) engage in efforts to benefit another person (i.e., a student) for whom they bear some level of responsibility" (p.80). Here, the teacher represents the consultee and the school psychologist, the consultant. Today, as Sheridan, Marshall, and Orme (1996) state, "school-based consultation approaches are generally recognized as viable

and acceptable means of service delivery for many educational disciplines" (p.341). This, of course, is especially viable to school psychologists who may spend a great portion of their day in consultation activities.

To further explain what consultants are and their role in consultation, File and Kontos (1992) provide an excellent discussion. They explain that due to legislation regarding the treatment of children with disabilities, teachers are now more than ever faced with the challenge of providing specialized services. With this, service providers like school psychologists are in greater demand to use their skills as consultants to help teachers effectively deal with greater numbers of classroom problems. The authors (1992) discussed the meaning of consultation in terms of it being a helping process involving the consultant (school psychologist), consultee (teacher), and client (usually the student). It is the goal of the consultant to solve the problem the client is having through the aid of the consultee. Further, it is hoped that the consultee will be able to deal with problems more effectively in the future.

Outcomes of consultation research

Martin and Curtis (1981) looked at consultant attributions regarding the success and failure of consultation interactions. To do so, 164 school psychologists were asked to recall their consultation relationships with teachers and consider reasons for their most and least successful cases. The school psychologists were divided into three groups based on geographic location. The reasons for success and failure were divided into 6 categories: acts or characteristics of the consultant, acts or characteristics of consultee, the consultant-consultee relationship, nature of the intervention, external factor (usually administrative or parental), and noncategorizable in major category. These categories were devised by the primary author of the study to reflect the responses given. He initially coded the subject responses into one of the possible categorization

system by judging the placement of subject responses by the primary author. Interater reliability was found to be .87. Results showed that the school psychologists attributed the success or failure of the consultations to one of the following: acts or characteristics of the consultee, the situation, or the nature of the intervention recommended. These results indicated the need to take consultees and their opinions into account.

Ringer and Short (1991) explored the years of teaching experience of school psychologists related to the causal attributions they made in regard to consultation outcomes with teachers. To do so, 300 members of the National Association of School Psychologists were randomly chosen and asked to complete a questionnaire regarding background and professional experience information (103 questionnaires were returned and 98 were used). They were also asked to think of their most and least successful consultations with a teacher and to write down the reason(s) for the outcome. Based on demographic information provided, subjects were divided into school psychologists with teaching experience (n=46) and without teaching experience (n=52). This division was made to effectively address the question being asked in the study regarding the effect that teaching experience had on consultation outcomes with teachers. Experience was defined as post-degree public school experience, not including practicum, post-high school, or university/college teaching experiences. After being divided into the two groups, responses were coded to fit the appropriate category (i.e., consultant focused attribution). Results revealed that school psychologists with teaching experience were less likely to attribute responsibility for consultation outcome to the teacher than were school psychologists without teaching experience. Non-teaching school psychologists made significantly fewer attributions to themselves in the successful condition than the unsuccessful condition, whereas teaching-experienced school psychologists made significantly more self-attributions in the successful condition and significantly fewer in the unsuccessful condition.

These studies indicate a need to consider teachers' experiences with consultation and their perceptions of consultation outcomes. Gutkin and Bossard (1984) addressed consultant, consultee, and organizational variables as they related to "teacher attitudinal preferences for consultation versus more traditional referral services" (p.252). Using school psychology graduate students as consultants, teaching staffs at nine elementary schools were used as subjects over a 14 week period. To measure the consultant's skills, the Consultant Observational Assessment Form (COAF) was used. Organizational information was gathered through the use of the Organizational Climate Description Questionnaire (OCDQ) and the Leader Behavior Description Questionnaire (LBDQ). Consultee variables were measured by using the number of years teaching and number of years at a particular school. Variance among teacher attitudes toward consultation services was found to be effected by total years of experience, school years, and initiating structure collectively. Initiating structure may be thought of as the leader's behavior regarding the development of work relationships and the establishment of patterns of organization, communication, and procedure. While these factors were found to be significant, it was noted that consultant skill was not a part of the significant proportion.

Other studies have attempted to investigate teacher perceptions of consultation. For example, Gutkin (1980) placed 12 advanced school psychology graduate students in 12 Midwest schools. These students served as consultants to the staff for a period of 14 weeks. The process engaged in included:

"defining each problem in specific, behavioral terms; analyzing the presenting problem with an emphasis on observable classroom behavior and extrapersonal causes of student dysfunction; brainstorming alternative solutions or the presenting problem; choosing the most appropriate solution; evaluating the impact of the intervention; and recycling into the problem-solving sequence when less than acceptable results were obtained"

(p.639).

Following the 14 week period, a questionnaire was given to the teachers to ascertain their reactions to the consultative activities. All in all, positive reactions were given by the consultees: 84% of teachers felt it desirable to have a school psychology consultant on their staff and 69% found consultation services to be better than traditional testing services.

Gutkin and Ajchenbaum (1984) furthered the investigation of teacher perceptions of consultation. Specifically, they focused on their perception of control and subsequent preference for consultative services. It was hypothesized that "teacher preferences for consultation versus referral services would vary as a function of how much personal control teachers perceived they had in regard to presenting problems" (p.566). To carry this out, a total of 64 teachers completed a modified form of the Pupil Problem Behavior Inventory (PPBI). The PPBI contained both a Degree of Control Scale and a Preference for Consultation Scale. The following context was presented to subjects to consider in order to complete the PPBI: a) problem behaviors are chronic and have not been able to be resolved despite efforts to do so; b) the behaviors are exhibited by fourth grade boys; and c) each item is related to different students. Results indicated a strong relationship between teachers' perceptions of control and preferences for consultative services. This suggests that teachers will seek consultation more when they feel they are in charge of a situation.

Gutkin and Hickman (1988) expanded on the findings of the study above by using 104 teachers from a Midwest state. These teachers were mailed a questionnaire consisting of four parts which defined consultation and described a consultation scenario. Two groups were selected randomly (from the sample); one group was given information that was designed to increase their sense of control and the other group's information was designed to decrease their sense of control. Control refers to the amount of control a

teacher feels they have over the presenting problems exhibited by a child. It was found that an increased sense of control resulted in a greater preference for consultation services in comparison to referral services. These findings support previous ones and may suggest that teachers appreciate and use consultation services more when they feel that they are in control.

Hughes, Grossman, and Barker (1990) surveyed consultee opinions in effort to clarify some of the inconsistency in the usage of consultation stating that it was "important to identify variables associated with teacher participation in consultation" (p.167). After 14 weeks of consultation provided by doctoral level school psychology students, teachers (n=87), filled out questionnaires which explored their self-efficacy and outcome expectancies for consultation. Questionnaires included the Self-Efficacy/Outcome Expectancy Questionnaire (SE/OEQ), the Consultee Final Perception Questionnaire (CFPQ), and Utilization of Consultation (a log of each consultative interaction). Results indicated a higher outcome expectancy by teachers for social withdrawal than for academic problems and that of teachers who used consultation services, those with higher self-efficacy scores changed their performance less as a result of consultation. These categories were derived from the SE/OEQ and the CFPQ used in the study. These results may suggest that teachers expected to have better outcomes when using consultation services to assist them in resolving problems of social withdrawal in students in comparison with academic problems. Also, teachers who felt they had good independent problem solving abilities changed less after consultation services were used.

Consultee perceptions of consultation were further investigated in two pieces of research beginning with Gutkin, Singer, and Brown (1980). Ninety-six public and parochial school teachers were used as the authors investigated teacher preference for consultation services as a function of the type and perceived severity of presenting problems. Advanced school psychology graduate students served as consultants in the

schools for a 14-week period. Following this, the Pupil Problem Behavior Inventory (PPBI) was given to all teachers (n=96) in the schools in the study. A control group was composed of those who did not receive consultation (n=47). The PPBI contained both a Preference for Consultation Scale and a Problem Severity Scale. Results were supportive of consultative services. There was a significant positive correlation between teachers' scores on the Preference for Consultation Scale and the Problem Severity Scale. These results were true for teachers in the experimental and control groups. They indicated that as problems became more severe teachers turned to consultative services to help resolve them rather than immediately turning to referral services.

Similarly, Terry Gutkin (1986) looked at consultation in terms of relationships among consultees' subjective perceptions of consultation experiences and outcomes. Teachers from 24 different schools were selected as subjects based on the fact that they were utilizing consultative services provided to their schools for the first time. Advanced graduate students were used in the consultant roles. The Consultation Feedback Questionnaire was the instrument used to collect teacher reactions concerning consultant's knowledge of psychological principles. This study showed some interesting findings with regard to the Consultation Feedback Questionnaire. The consultant's content skill variables (knowledge of psychological principles and how to apply them to classroom problems) and process skill variables (consultant's communication skills) were consistently related to the consultee's perceptions regarding the outcome of the services provided in that the greater the level of both, the higher the satisfaction. However, the number of contacts with consultants was not substantially related to consultees' perceived satisfaction with consultation services. The author cautions the interpretation of the results because they were based on perceptions of rather than actual consultative interactions.

A study by Flugum and Reschly (1994) addressed the issue of consultation in terms of looking at prereferral interventions and the quality and outcomes of interventions provided to students. To carry out their study, 175 regular education teachers and 123 related services personnel completed a questionnaire about 470 students who had been referred, were comprehensively evaluated, and were found ineligible for special education services. Both quality and outcome of interactions were addressed in this study. There were six yes/no questions relating to quality indices (e.g., "Was there a step-by-step, or systematic, plan for the intervention"?) and five questions regarding outcome (e.g., "Did the behavior improve? Yes-No", and "The degree of improvement was: small, moderate, or large").

General findings indicated that there was a low implementation rate regarding five of the six yes/no questions present on the quality indices. The intervention being "implemented as planned" was rated, however, as being done by approximately three-fourths of the respondents. The quality indices and outcome measures were correlated. Responses showed that only behavioral definitions and treatment integrity were significantly associated with positive student outcomes. This research was unique and important to the study proposed here in that it measured the effectiveness of many of the specific components of consultation relationships.

Knoff, Sullivan, and Liu (1995) sought to identify teacher opinion regarding effective consultants based on the characteristics they possess. To do so, 600 teachers (with 366 finally participating) from a Florida school district were given a revised version of the original 75-item Consultant Effectiveness Scale (CES). This scale identifies characteristics and/or skills thought to be possessed by effective consultants (e.g. "the consultant is knowledgeable", "encouraging", and "funny") and is based on the work of Knoff, McKenna, and Riser (1991) and Knoff, Hines, and Kromery (1995). Through factor analysis of the characteristics two subscales emerged; 1) Consultant Knowledge,

Process, and Application Skills, and 2) Consultant Interpersonal and Problem-Solving Skills. Chronbach's alpha coefficients showed the following internal consistency reliabilities for the two factors: .95 and .93. Results of this study indicated that "maintains confidentiality", "trustworthy", and "knowledgeable in the area of expertise" were the highest rated items. Demographic information given by subjects was also compared to the ratings of the characteristics. Regardless of years of teaching experience, level of student population served, or number of consultation interactions, characteristics describing interpersonal skills were always important regarding the effectiveness of a consultant. All of this information may be used by school psychologists to develop or refine their skills in areas identified as important in consultants.

Upon reviewing the literature regarding consultation it was clear that an abundance of information existed. Issues such as reasons for the success and failure of consultation activities, consultee preference for consultation versus referral services, and characteristics of effective consultants have been addressed. A way to add to the breadth of literature would be to complete a study which sought to describe the characteristics of consultants as well as the quality and outcomes of consultation interactions with these consultants. Furthermore, as the Consultant Effectiveness Scale (CES) has only been investigated in factor analytic studies, a study which sought to establish convergent validity between the CES and measures of consultation quality could prove valuable.

The purpose of this study was to determine these characteristics which consultees identified in school psychological consultants. Another purpose of this study was to measure consultation interaction quality and outcome in order to investigate whether or not a relationship exists between the quality and overall student improvement. Also, as the CES exists as a measure of characteristics possessed by effective consultants with only factor analytic research supporting the items, this study sought to investigate the convergent validity between the possession of these characteristics and actual

consultation quality and change in student functioning.

The specific research questions were: 1) Which characteristics do teachers identify in a school psychological consultant? 2) How do consultees rate the outcomes of consultation relationships they have had with school psychologists? 3) How do consultees rate the quality of the consultative interactions they have had with school psychologists in terms of the interventions planned and implemented? 4) Are there differences in perceived change in overall student functioning by the quality of consultative interventions? and 5) Does convergent validity exist between the factors established on the Consultant Effectiveness Scale and the measures of consultation quality and change in overall student functioning. It was expected that certain characteristics would be consistently identified as being held by the school psychological consultants. It was also expected that a significant change in overall student functioning would be found when the consultants in question engaged in quality consultative practices.

Method

Participants

Participants in this study were 85 teachers working in grades K through 12 from schools in the Southwest suburbs of Chicago. These teachers reported that they had engaged in a consultative relationship in the past 12 months. The final sample was comprised of 71 females and 14 males (see Table 1).

Measures

Questionnaires included a demographic section, a measure of consultant characteristics, and a measure of consultation interaction quality and outcomes.

Consultant characteristics. The Consultant Effectiveness Scale (CES), originated by Knoff, McKenna, and Riser (1991) and later finalized by Knoff, Hines, and Kromery 1995) was utilized in this study. The CES is a rating scale comprised of characteristics thought to be possessed by effective school psychological consultants. It was developed through interviews with school psychologists regarding the characteristics and skills of consultants as well as a review of the consultation literature. From these sources, a list of effective consultant characteristics was generated into the CES. The final form of the CES contains 52 items, samples of which included, "empathetic", "reviews client records", and "active listener". Items were rated on a five point Likert-type scale with responses ranging from one ("not at all") to five ("to a very large degree"). Responses were summed and higher scores represented greater importance placed on that item. Through factor analysis of the 52 items, Knoff et al. (1995) derived the following four subscales: 1) Interpersonal Skills; 2) Problem-Solving Skills; 3) Consultation Process and Application Skills; and 4) Ethical and Professional Practice Skills. Chronbach's alpha coefficients showed the following internal consistency reliabilities for the four factors: .95, .89, .88, and .81.

Consultation quality and outcomes. Perceived quality of consultative relationships was measured through the completion of the six statements used in the Flugum and Reschly (1994) study. These statements were: 1) Was a behavioral definition of the target behavior established? (Yes/No); 2) Was a direct measure of behavior in the natural setting obtained prior to intervention implementation (baseline data)? (Yes/No); 3) Was there a step-by-step, or systematic, plan for the intervention? (Yes/No); 4) Was the intervention implemented as planned? (Yes/No); 5) Were the intervention results graphed? (Yes/No); and 6) Was there a direct comparison of baseline and postintervention performance? (Yes/No). Perceived outcome of consultative relationships was measured through the following five statements derived from the same Flugum and Reschly (1994) study: 1) Did the behavior improve? (Yes/No); 2) The degree of improvement was small, moderate, or large?; 3) Were the goals of the intervention accomplished? (Yes/No); 4) Did the student function better? (Yes/No); and 5) To what degree did the overall functioning of the student change? (Likert-type scale, one= much worse to five=much better). According to Flugum and Reschly, (1994) these statements were developed by the Iowa Department of Education, Iowa State University, and Iowa Area Education Agency personnel.

Procedure

To carry out this study, interschool mail was utilized. Each teacher received a research packet with information about the study. Included in the packet was a number 2 pencil for completion of materials and a letter explaining the intent of the study, the fact that all information would be anonymous, and that only group results would be reported. Consultation was defined for subjects according to the definition given by Curtis and Meyers (1985). Before being asked to complete any questionnaires the request for demographic information was made. The CES was presented next followed by the quality and outcome measure. Additionally, subjects were made aware that participation

was voluntary and that they could withdraw at any time. Completed packets were picked up periodically over a two-week period at each school.

Table 1 Frequency and Percentage of Teacher Demographic Characteristics

Characteristic	N	Percent
Gender		
Female	71	83.5
Male	14	16.5
Years Teaching		
1-3	13	15.2
4-9	24	28.2
10-15	16	18.8
16-20	18	21.2
>20	14	16.5
Grades Taught		
K	48	56.5
1	47	55.3
2	47	55.3
3	47	55.3
4	14	16.5
5	15	17.6
6	26	30.6
7	25	29.4
8	26	30.6
9	12	14.1
10	12	14.1
11	12	14.1
12	12	14.1
Age		
<21	0	0
22-30	23	27.1
31-40	18	21.2
41-50	30	35.3
>50	14	16.5
Student Population Taught		
Regular Education	61	71.8
Special Education	15	17.6
Occupational Education	0	0
Other	1	1.2
Regular & Special Education	8	9.4

Table 1 continued

Characteristic	<u>N</u>	Percent
Approximate Number of Consul	tation Interactions in the Last	12 Months
1-5	52	61.2
6-10	13	15.3
11-15	7	8.2
16-20	4	4.7
>20	9	10.6
Are the Consultation Interactions	s Participated in Primarily Info	ormal or Formal?
Informal	28	32.9
Formal	34	40
Both	22	25.9

Results

<u>Purpose 1</u>: Which characteristics do teachers identify as those being possessed by a school psychological consultant?

Means, standard deviations, and minimum and maximum ratings were determined for each item rated on the Consultant Effectiveness Scale (CES) (see Table 2). Item 50, "Specify the Contract (Time, Effort, Cost)" was rated as being possessed the least by psychologists (Mean= 3.64) while item 14, "Pleasant" was rated as being possessed the most (Mean= 4.59). Overall, mean ratings were found to be highest for interpersonal skill characteristics.

<u>Purpose 2</u>: How do consultees rate the outcomes of consultation relationships they have had with school psychologists?

Five questions were used in this study to address the question of consultation outcomes. The number of responses given to each question are reported as well as the percentage of responses (see Table 3). Overall, most teachers felt that the behavior of the student in question improved with the improvement being small to moderate. Also, most felt that the goals of the intervention were accomplished and that the student did function better. The majority of teachers rated the overall change in student functioning to be about the same or better.

<u>Purpose 3:</u> How do consultees rate the quality of the consultative interactions they have had with school psychologists in terms of the interventions planned and implemented?

Six questions addressed the degree of quality in consultative relationships. The number of responses given to each question was recorded as well as the percentage of responses (see Table 4). Most teachers indicated that a behavioral definition of the target behavior was established and that a baseline level of behavior prior to the intervention

was determined. Most raters found there to be a systematic plan for the intervention and that the intervention was implemented as planned. Most teachers felt that intervention results were not graphed and that comparisons were not made between baseline and post-intervention performance.

<u>Purpose 4:</u> Are there differences in perceived change in overall student functioning by the quality of consultative interventions?

Change in overall student functioning was addressed through the use of the last item on the measure of consultation outcome. Six Analyses Of Variance (ANOVAs) were conducted to examine this question (see Table 5). Results indicated that 1) having a step-by-step, or systematic plan for the intervention, 2) the intervention being implemented as planned (treatment integrity), and 3) making a direct comparison between baseline and post-intervention performance made a difference in that the overall functioning of the student in question significantly improved when these indices of quality have been implemented. However, results showed that 1) establishing a behavioral definition of the target behavior, 2) obtaining baseline data of the behavior, and 3) graphing the intervention results made no difference in the overall functioning of the student.

<u>Purpose 5:</u> Does convergent validity exist between the four factors established on the Consultant Effectiveness Scale (CES) and the measure of consultation quality and change in overall student functioning?

The four factors found on the CES are: Interpersonal Skills, Problem-Solving Skills, Consultation Process and Application Skills, and Ethical and Professional Practice Skills. The six questions addressing quality of the consultation process were summed to create one index. Coefficient alpha was calculated on this index and found to be within acceptable range (alpha= .80). Correlation coefficients were determined (see Table 6). Results indicated that moderate to high positive correlation's existed between all four CES factors and the measure of quality (range of r=.55-.61, p<.001). Results also

revealed moderate positive correlations between the four CES factors and the measure of perceived change in overall student functioning (range of r = .39-.43, p < .001).

Table 2
Mean, Standard Deviation, Minimum, and Maximum Ratings for the Consultant Effectiveness Scale (CES) and CES Factor Items

CES Item	The Psychologist Was (Did)	<u>M</u>	$\underline{\mathrm{SD}}$	Min	Max
CES 50	Specify the Contract (Time, Effort, Cost)	3.64	1.20	1	5
CES 44	Self-Disclose	3.81	1.21	1	5
CES 6	Encourage Ventilation	3.86	1.09	1	5
CES 47	Take Risks/Willing to Experiment	3.87	1.09	1	5
CES 8	Able to Overcome Resistance	3.90	1.05	1	5
CES 52	Pursue Issues/Follow Through	4.02	1.04	1	5
CES 38	Skilled in Conflict Resolution	4.02	1.04	1	5
CES 8	Skilled in Questioning	4.04	1.05	1	5
CES 26	Document for Clear Communication	4.10	1.02	1	5
CES 32	Specific	4.10	.99	1	5
CES 31	Review Client Records	4.11	.99	1	5
CES 51	Aware of Relationship Issues	4.12	.96	2	5
CES 45	Anticipate Possible Consequences	4.14	1.09	1	5
CES 3	Expresses Affection (Was Supportive)	4.15	.91	2	5
CES 16	Warm	4.16	.86	2	5
CES 30	Clarify His/Her Role	4.16	1.02	1	5
CES 1	Skillful	4.17	.86	2	5
CES 24	Give and Receive Feedback	4.18	1.01	1	5
CES 19	Give Clear, Understandable Directions	4.18	.96	2	5
CES 33	Active	4.19	1.00	1	5
CES 34	Maintain an "I'm OK-You're OK Position	4.19	.97	1	5
CES 27	An Astute Observer/Perceptive	4.19	.94	1	5
CES 39	Good at Problem-Solving	4.20	.98	1	5
CES 29	Willing to get Involved	4.20	.98	1	5
CES 9	Open-Minded	4.20	.93	2	5
CES 36	A Good Facilitator	4.22	1.04	1	5
CES 28	Effective at Establishing Rapport	4.22	.92	1	5
CES 48	Identify Clear Goals	4.22	1.02	1	5
CES 18	An Efficient User of Time	4.23	.97	1	5
CES 35	Flexible	4.23	.92	2	5
CES 22	Collaborative	4.24	.94	1	5
CES 25	A Team Player	4.25	.92	1	5
CES 49	Evaluative/Focus Ideas	4.27	.92	1	5
CES 20	Have a Clear Sense of Identity	4.27	.87	2	5
CES 2	Empathetic	4.30	.88	2	5

Table 2 Continued

CES Item	The Psychologist Was (Did)	<u>M</u>	SD	Min	Max
CES 23	Encouraging	4.32	.87	2	5
CES 10	Tolerant	4.36	.86	2	5
CES 12	Accepting (Non-Judgmental)	4.36	.78	2	5
CES 4	Interested (Concerned)	4.36	.84	1	5
CES 43	Have Feelings and Behaviors that were				
	Consistent	4.37	.79	2	5
CES 46	Employ Appropriate Personal Distance	4.40	.80	2	5
CES 15	Tactful	4.42	.79	2	5
CES 40	Have a Positive Attitude	4.43	.76	2	5
CES 37	Approachable	4.45	.84	1	5
CES 17	An Active Listener	4.48	.75	2	5
CES 21	Emotionally Well-Adjusted/Stable	4.48	.77	2	5
CES 11	Attentive	4.48	.77	2	5
CES 13	Show Respect for the Consultee	4.49	.74	2	5
CES 5	Trustworthy	4.49	.83	1	5
CES 41	Practice in an Ethical Manner	4.52	.77	1	5
CES 42	Maintains Confidentiality	4.54	.79	1	5
CES 14	Pleasant	4.59	.66	3	5
CES Factor	r Items	M	SD	Min	Max
Interperson	al Skills	102.96	18.31	50	120
Problem-Solving Skills		58.38	11.36	20	70
Consultation	Consultation Process & Application Skills		9.39	12	55
Ethical & I	Professional Practice Skills	31.18	4.56	19	35

Table 3 Frequency and Percentage of Consultation Outcome Responses

Question	<u>N</u>	Percent
Did the behavior improve?		
Yes	49	57.6
No	27	31.8
Not Indicated	9	10.6
The degree of improvement was:		
Small	34	40.0
Moderate	32	37.6
Large		
Not Indicated	16	18.8
Were the goals of the intervention accom-	plished?	
Yes	42	49.4
No	22	25.9
Not Indicated	21	24.7
Did the student function better?		
Yes	47	55.3
No	24	28.2
Not Indicated	14	16.5
To what degree did the overall functioning	ng of the student change?	
1=Much Worse	0	0
2=Worse	1	1.2
3=About The Same	28	32.9
4=Better	42	49.4
5=Much Better	3	3.5
Not Indicated	11	12.9

Table 4
Frequency and Percentage of Consultation Quality Responses

Question	<u>N</u>	Percent
Was a behavioral definition of the	target behavior established?	
Yes	61	71.8
No	20	23.5
Not Indicated	4	4.7
Was a direct measure of the behav implementation?	ior in the natural setting obtained	ed prior to the
Yes	57	67.1
No	24	28.2
Not Indicated	4	4.7
Was there a step-by-step, or system	natic, plan for the intervention?	
Yes	57	67.1
No	24	28.2
Not Indicated	4	4.7
Was the intervention implemented	as planned (treatment integrity)?
Yes	60	70.6
No	15	17.6
Not Indicated	10	11.8
Were the intervention results graph	ned?	
Yes	11	12.9
No	58	68.2
Not Indicated	16	18.8
Was there a direct comparison of b	paseline and post-intervention p	erformance?
Yes	22	25.9
No	42	49.4
Not Indicated	21	24.7

Table 5
One-Way Analyses Of Variance for Overall Change in Student
Functioning by the Quality of the Consultative Intervention Implemented

Source	<u>DF</u>	<u>F</u>	Sig. of F
Quality 1	1	1.167	.284
Quality 2	1	.865	.356
Quality 3	1	4.654	.034*
Quality 4	1	6.271	.015*
Quality 5	1	2.667	.108
Quality 6	1	21.721	.000**

Note. *p <.05. **p <.001.

Table 6
Correlations Between the Four CES Factors and the Measures
of Consultation Quality and Overall Change in Student Functioning

CES Factor	ConQual.	Overall Change
Interpersonal Skills	r =.58	r =.40
Problem-Solving Skills	r = .61	r = .43
Consultation Process & Application Skills	r = .60	r = .40
Ethical & Professional Practice Skills	r = .55	r = .39

Note. ConQual.= Six measures of consultation quality summed to create one index Overall Change= The perceived change in overall student functioning

Discussion

The findings of this study did show that certain characteristics were consistently identified as being held by the school psychological consultants in question. Also, significant changes in overall student functioning were identified in relation to certain aspects of the quality of the consultations practiced by the school psychologists. The following discussion will address each research question beginning with the characteristics identified as being possessed by school psychologists. Both outcome of consultation interactions and their quality will be addressed along with a discussion of the influence of consultative quality found upon the overall degree of change in the functioning of the students in question. The convergent validity between the Consultant Effectiveness Scale (CES) and the measures of consultation quality and overall change in student functioning will be highlighted. Limitations of this study as well as directions for future research will be discussed.

Characteristics Possessed by School Psychologists

Characteristics of effective consultants have been addressed in past research (Gutkin, 1980; Knoff, Hines, & Kromery; 1995, Knoff, McKenna, & Riser, 1991; Knoff, Sullivan, & Liu, 1995). In this study, characteristics of consultants were investigated to determine which were identified as being possessed by school psychologists and to what extent. The Consultant Effectiveness Scale (CES) was utilized to do so. Overall, ratings did show that interpersonal skill characteristics were cited more often than all others found on the CES. These findings are of interest to school psychologists for a number of reasons. To begin, all items on the CES have been identified as being characteristics of effective consultants. Any rating on the Likert-type scale utilized in regard to the CES which was above a three ("To A Considerable Degree") can be seen as a positive. The lowest average rating obtained on the CES in this study was 3.64 indicating that all characteristics were present in the psychologists in question.

While the characteristics possessed by school psychologists may be applicable only to those in this study, more generalizable information may be found upon examination of the apparent trend that "interpersonal" characteristics were identified as being possessed more than "professional skill" characteristics. This should be encouraging to school psychologists, as interpersonal skills are very beneficial to successful consultations with teachers. Psychologists may also take note of the professional skill areas that were rated lower and use this information to reinforce their knowledge. The maintenance of high level interpersonal skills and the continued building of professional skills will lead to better experiences with consultation as a whole.

Ratings of Consultation Quality and Outcomes

Consultation outcomes and quality were rated with a series of questions taken from a study completed by Flugum and Reschly (1994). An examination of the results from this portion of the study revealed very striking information in regard to these areas. It was generally found that students did improve as a result of the consultation interactions between teachers and psychologists. This is information that can be used by both teachers and school psychologists as both seek validation that students can improve when consultation is used. These positive ratings of outcome become even more important when considering the results regarding quality.

Consultation quality was measured in terms of different aspects involved in planning and carrying out an intervention. These findings relate more to school psychologists in that they often have more training, and thus greater expertise, in guiding teachers through the steps in the implementation of an intervention. According to the teacher raters in this study most areas of quality were found to exist in the interventions. These areas included the definition of the target behavior, the existence of treatment integrity, a measure of baseline behavior before the intervention was implemented, and the existence of a step-by-step plan for the intervention. The areas of quality that were lacking included the

graphing of intervention results and the comparison of baseline and post-intervention performance. The lack of these two quality measures indicated that more follow-up is needed by school psychologists regardless of the success or failure of the intervention.

Convergent Validity Between the CES and the Measures of Consultation Quality and Change in Overall Student Functioning

The CES had existed as a measure of characteristics possessed by effective consultants with only factor analytic research supporting the items. This study provides support that convergent validity exists between the possession of these characteristics and actual consultation quality and change in student functioning. These findings may be valuable to psychologists as they can take the characteristics identified on the CES and compare them to their own and find areas for improvement. These findings may be even more valuable to researchers who may now look to the CES as an instrument with established validity thus creating the opportunity to expand research into more specific areas of what makes consultant's effective.

The most important findings of this study relate to school psychologists and those who train them. These findings deal with the relationships among the quality of consultation interactions being had and the outcomes of the interventions devised. It was hypothesized that a relationship did exist between the two and, in fact, there was. Results of the analyses of variance completed showed that overall student functioning significantly improved when the following quality measures existed: a step-by-step plan for the intervention, treatment integrity, and a direct comparison of baseline and post-intervention performance.

School psychologists can use these results by including these aspects of quality into their everyday consultation interaction. Trainers in school psychology programs may use this information by emphasizing the importance of carefully planning interventions, seeing that they are carried out as planned, and finally comparing performance before and

after the intervention.

Limitations of the Study

Limitations exist in this study due to the fact that self-report data was relied upon from teachers who were asked to rate school psychologists based upon their remembrance of the work that they had done with that psychologist. An attempt was made to address this issue by including only those teachers who had worked with a school psychological consultant within the past 12 months in effort to limit time lapse between consultation experiences and survey completion.

Another limitation was the use of the four factor structure on the CES when determining correlations between the measure of quality and overall change in student functioning. The factor structure for teacher reports may be different than that used here. A further limitation was that the reliability of the single item outcome measure of overall change in student functioning was unable to be determined.

Directions for Future Research

Future research may consider several directions in building on this study. First, a larger sample of teachers may be used in a different demographic area. This would allow for more school psychologists to be represented in the data. Also, even as this study established convergent validity between the CES and measures of consultation quality and perceived student outcome, it would be interesting to determine whether or not specific characteristics from it relate to consultation quality and/or outcome. It may be hypothesized that there would be a high correlation between the possession of certain characteristics and the resulting quality and outcome of consultation relationships. This information would allow psychologists the opportunity to sharpen specific characteristics within themselves to better their practice as consultants with teachers.

Conclusion

This study has provided valuable information for all those involved in the field of

school psychology. The literature reviewed herein addressed many areas of consultation. However, what was unique to this study was that it combined aspects of different studies to add to what we know. One of these studies was completed by Flugum and Reschly (1994). They sought to investigate consultation quality and outcome through a series of questions asked of teachers. These same questions were asked of the current study participants and agreement was reached with the original authors in that the existence of treatment integrity in the interventions implemented related positively to student outcome. However, conflicting results were found in that the current study also identified having a systematic plan for interventions and comparing baseline to post intervention performance to be positively related to student outcome.

The current study also utilized the Consultant Effectiveness Scale (CES), developed by Knoff et al., (1991 & 1995). The CES identified a number of characteristics present in effective consultants. This study not only surveyed teachers regarding their opinions of a psychological consultant that they have worked with but it established convergent validity between the CES and the measures of consultation quality and overall change in student functioning. This validity provides evidence that the characteristics on the CES do in fact represent those found in consultants who provide quality consultative services as well as those who positively affect overall change in student functioning.

It is hoped that this study may be a valuable asset to those practicing school psychology, their trainers, and those involved in research. By giving attention to the information provided here and that which will come in the future, school psychological services provided to students and all involved in their education will improve.

References

- Curtis, M.J., & Meyers, J. (1985). Best practices in school-based consultation:
 Guidelines for effective practice. In A. Thomas & J. Grimes (Eds.), <u>Best Practices In School Psychology</u> (pp.79-94). Washington, DC: National Association of School Psychologists.
- File, N., & Kontos, S. (1992). Indirect service delivery through consultation: Review and implications for early intervention. Journal of Early Intervention, 16, 221-223.
- Flugum, K.R., & Reschly, D.J. (1994). Prereferral interventions: Quality indices and outcomes. Journal of School Psychology, 32, 1-14.
- Gutkin, T.B. (1980). Teacher perceptions of consultation services provided by school psychologists. Professional Psychology, 11, 637-642.
- Gutkin, T.B. (1986). Consultees' perceptions of variables relating to the outcomes of school-based consultation interactions. School Psychology Review, 15, 375-382.
- Gutkin, T.B., & Ajchenbaum, M. (1984). Teachers' perceptions of control and preferences for consultative services. <u>Professional Psychology: Research and Practice</u>, <u>15</u>, 565-570.
- Gutkin, T.B., & Bossard, M.D. (1984). The impact of consultant, consultee, and organizational variables on teacher attitudes toward consultation services. <u>Journal of School Psychology</u>, 22, 251-258.
- Gutkin, T.B., & Hickman, J.A. (1990). Teachers' perceptions of control over presenting problems and resulting preferences for consultation versus referral services. Journal of School Psychology, 26, 395-398.
- Gutkin, T.B., Singer, J.H., & Brown, R. (1980). Teacher reactions to school-based consultation services: A multivariate analysis. <u>Journal of School Psychology</u>, 18, 126 134.

Hughes, J.N., Grossman, P., & Barker, D. (1990). Teachers' expectancies, participation in consultation, and perceptions of consultant helpfulness. <u>School Psychology Quarterly</u>, 5, 167-179.

Knoff, H.M., Hines, C.V., & Kromery, J.D. (1995). Finalizing the consultant effectiveness scale: An analysis and validation of the characteristics of effective consultants. School Psychology Review, 24, 480-496.

Knoff, H.M., McKenna, A.F., & Riser, K. (1991). Toward a consultant effectiveness scale: Investigating the characteristics of effective consultants. <u>School Psychology</u>
Review, 20, 81-96.

Knoff, H.M., Sullivan, P., & Liu, D. (1995). Teachers' ratings of effective school psychology consultants: An exploratory factor analysis. <u>Journal of School Psychology</u>, <u>33</u>, 39-57.

Martin, R.P., & Curtis, M. (1981). Consultants' perceptions of causality for success and failure of consultation. Professional Psychology, 12, 670-676.

Ringer, M.M., & Short, R.J. (1991). Consultant attributions revisited: The relationship to teaching experience to consultant attributions. <u>Psychology in the Schools</u>, 28, 353-360.

Sheridan, S.M., Welch, M., & Orme, S.F. (1996). Is consultation effective? A review of outcome research. Remedial and Special Education, 17, 341-354.

APPENDIX A RELATIONS BETWEEN CONSULTANT CHARACTERISTICS AND MEASURES OF CONSULTATION QUALITY AND OUTCOME

Dear Teacher,

You have been selected as a prospective participant in a research study regarding consultation with school psychologists. Specifically, this study will use teacher opinion to gather data regarding the perceived characteristics of a school psychological consultant as well as the quality and outcome of consultation activities and relationships.

Please be aware that participation in this study is voluntary and that you may withdraw at any time. Furthermore, this study will remain anonymous and only group data will be reported. To take part in this study you must give consent stating that you have been informed of and understand the conditions listed above and that you agree to participate. In order to maintain the anonymity, you may give consent by circling either yes or no indicating that you have been informed of the voluntary and anonymous nature of the study and by completing the enclosed study materials.

Please circle the appropriate response indicating that you have been informed of the voluntary and anonymous nature of this study:

Yes No

By circling Yes, I give my consent to participate in this study and state that I have been informed of it's voluntary and anonymous nature.

Please read the following definition of Consultation:

Consultation is a collaborative, problem-solving process in which two professionals (i.e., a teacher and a school psychologist) engage in efforts to benefit another person (i.e., a student) for whom they bear some level of responsibility (Curtis and Meyers, 1985).

Have you engaged in this type of consultation within the last 12 months?

Yes No

Below you will find three sections (A, B, and C) which are to be completed. Please read the directions preceding each section before beginning. All answers may be circled on the questionnaire itself.

Section A

Please provide the following demographic information by circling the appropriate response following each question.

1)Your Gender: Male Female

2)Years Teaching: 1-3 4-9 10-15 16-20 >20

3)Grade Taught: K-3 4-5 6-8 9-12

4)Your Age: <21 22-30 31-40 41-50 >50

5)Student Population Taught: Regular Education Special Education

Occupational Education Other

6)Approximate number of consultation interactions in last 12 months:

1-5 6-10 11-15 16-20 >20

7) Are the consultation interactions participated in primarily informal or formal?

Informal (i.e., short "hallway conversations" about a student) Formal (i.e., includes formal steps and intervention plans)

Section B

Think of the most recent school psychological consultant you have worked with and rate that consultant based on the degree to which he or she exhibited each of the identified behaviors below using the following scale:

1=Not At All 2=To A Slight Degree 3=To A Considerable Degree 4=To A Large Degree 5=To A Very Large Degree

11)Attentive 1 2 3 4 5

Section B Continued...

1=Not At All 2=To A Slight Degree 3=To A Considerable Degree 4=To A Large Degree 5=To A Very Large Degree

The Psychologist Was (Did): 12)Accepting (Non-Judgmental) 1 2 3 4 5 13) Show Respect for the Consultee 1 2 3 4 5 14)Pleasant 1 2 3 4 5 15)Tactful 1 2 3 4 5 16)Warm 1 2 3 4 5 17)An Active Listener 1 2 3 4 5 18) An Efficient User of Time 1 2 3 4 5 19) Give Clear, Understandable Directions 1 2 3 4 5 20) Have a Clear Sense of Identity 1 2 3 4 5 21)Emotionally Well-Adjusted/Stable 1 2 3 4 5 22)Collaborative (Share Responsibility) 1 2 3 4 5 23)Encouraging 1 2 3 4 5 24) Give and Receive Feedback 1 2 3 4 5 25)A Team Player 1 2 3 4 5

Section B Continued...

1=Not At All 2=To A Slight Degree 3=To A Considerable Degree 4=To A Large Degree 5=To A Very Large Degree

The Psychologist Was (Did) 26) Document for Clear Communication 1 2 3 4 5 27)An Astute Observer/Perceptive 1 2 3 4 5 28)Effective at Establishing Rapport 1 2 3 4 5 29) Willing to Get Involved 1 2 3 4 5 30)Clarify His/Her Role 1 2 3 4 5 31)Review Client Records 1 2 3 4 5 32)Specific 1 2 3 4 5 33)Active 1 2 3 4 5 34) Maintain an "I'm OK-You're OK" Position 1 2 3 4 5 35)Flexible 1 2 3 4 5 36)A Good Facilitator 1 2 3 4 5 37)Approachable 1 2 3 4 5 38)Skilled in Conflict Resolution 1 2 3 4 5

39)Good at Problem-Solving 1 2 3 4 5

Section B Continued...

1=Not At All 2=To A Slight Degree 3=To A Considerable Degree 4=To A Large Degree 5=To A Very Large Degree

The Psychologist Was (Did)

40)Have a Positive Attitude 1 2 3 4 5

41)Practice in an Ethical Manner 1 2 3 4 5

42)Maintain Confidentiality 1 2 3 4 5

43)Have Feelings and Behaviors that were Consistent 1 2 3 4 5

44)Self-Disclose 1 2 3 4 5

45)Anticipate Possible Consequences 1 2 3 4 5

46)Employ Appropriate Personal Distance 1 2 3 4 5

47)Take Risks/Willing to Experiment 1 2 3 4 5

48)Identify Clear Goals 1 2 3 4 5

49)Evaluate/Focus Ideas 1 2 3 4 5

50)Specify the Contract (Time, Effort, Cost) 1 2 3 4 5

51)Aware of Relationship Issues 1 2 3 4 5

52)Pursue Issues/Follow Through 1 2 3 4 5

Section C

Think of the most recent consultation relationship you have had with a school psychologist and respond to the following statements:

- 1) Was a behavioral definition of the target behavior established? Yes No
- 2) Was a direct measure of the behavior in the natural setting obtained prior to intervention implementation (baseline data)?

Yes No

- 3) Was there a step-by-step, or systematic, plan for the intervention? Yes No
- 4) Was the intervention implemented as planned (treatment integrity)? Yes No
- 5) Were the intervention results graphed? Yes No
- 6) Was there a direct comparison of baseline and post-intervention performance?

Yes No

- 7)Did the behavior improve? Yes No
- 8)The degree of improvement was: Small Moderate Large
- 9) Were the goals of the intervention accomplished? Yes No
- 10)Did the student function better? Yes No
- 11)To what degree did the overall functioning of the student change?

1=Much Worse 2=Worse 3=About The Same 4=Better 5=Much Better

Thank you very much for completing the questions included in this study. You have helped in making a contribution to the research regarding consultation. Please return the completed research materials to the school secretary by March 31 and I will be around to pick them up. Results of this study will be made available to your school when the data are analyzed for your information.

Thank You!

Ian MacLeod School Psychologist Intern