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Teacher Preferences for and Actual Use of Service Delivery Options: A Study of Possible Influential Variables.

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TEACHER PREFERENCES FOR AND ACTUAL USE OF SERVICE DELIVERY OPTIONS: A STUDY OF POSSIBLE INFLUENTIAL VARIABLES

A Dissertation
Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in partial fulfillment of the requirements for the degree Doctor of Philosophy in The Department of Psychology

by
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May, 1996
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ABSTRACT

Variables influencing teacher preference for and actual use of two service delivery options, consultation and referral for evaluation, have previously been studied in isolation using varying methodologies. In this study, several variables including teacher attributions, organizational characteristics, child characteristics, and classroom behavior were studied in a comprehensive format. The relationship between these variables and teacher outcome expectancies, preference for services, and use of consultation versus referral was investigated.

Sixty-seven teachers (grades K-8) seeking assistance for a student with behavior problems participated in the study. Teachers completed a demographic questionnaire, and measures of attributions, perceptions of problems, outcome expectancies, and preference for services. Information about organizational variables in the school where the referring teachers worked was also collected. Faculty at participating schools completed measures about school climate and the process of obtaining help with children exhibiting behavior problems in the school. Data were also collected about the referred child’s classroom behavior. Information about the child’s off-task behavior, and disruptiveness to teacher and peers was collected by a trained observer over three observations. Finally, information was collected about teacher and school referral
frequency, final case outcomes, and teacher willingness to attempt interventions in the classroom.

Results suggested that variables studied here are differentially important when considering outcome expectancies, preference for services, and actual case outcomes. First, when considering teacher beliefs about expected outcomes of each service delivery option, teacher attributions about his/her control over the problem behavior and the severity of the problem were found to be important. Second, when investigating factors that influence teacher choices for the optimal service in a given case, teacher attributions about the child's ability to control his/her own behavior, severity of the problem, and classroom behavior were found to be most important. Finally, in predicting actual case outcomes, the following variables were found to be significant: teacher willingness to help, and organizational variables, including school climate and staff perceptions of access to and efficiency of consultation services. Future studies are needed in order to further our understanding of conditions under which teachers prefer and use one form of service delivery over another.
INTRODUCTION

Attempts to provide all children with a free and appropriate education have led to increased numbers of children referred for special services each year (Fuchs, Fuchs, Bahr, Fernstrom, & Stecker, 1990). These referrals have led to the identification of many students who may have been better served with modifications in the regular classroom. This inappropriate classification of children, particularly those with mild learning or behavior problems, has led to a call for a consultation-based model of service delivery (Ponti, Zins, & Graden, 1988). The consultative approach, through the use of prereferral consultation and intervention, attempts to reduce the number of referrals to special education by providing assistance to teachers that results in enabling the child to remain in the regular classroom (Nelson, Smith, Taylor, Dodd, & Reavis, 1991).

The efficacy of consultation as a means of service delivery has been demonstrated in several research reviews and meta-analyses (Gutkin & Curtis, 1990). Additionally, prereferral intervention models implemented in schools have generally supported the belief that the frequency of the refer-test-place sequence can be decreased through the use of prereferral interventions (Graden, Casey, & Bonstrom, 1985). Despite these findings, actual use of prereferral interventions by education departments has been less encouraging. For example, Carter and Sugai (1989) surveyed
state departments of education throughout the country and found that 21 of the 45 states completing the survey reported that prereferral intervention was either only recommended or not required. Likewise, in a national survey of school psychologists, Harris, Gray, Rees-McGee, Carroll, and Zaremba (1987) found that although many informal requests for services are made, a high percentage of these requests ultimately become formal referrals for traditional assessment. These studies and others have led school psychologists to search for an understanding of the behavior of teachers in the consultation setting and also, their motivation or willingness to initially engage in the process, rather than to refer the child. Clearly, further studies are needed to determine which variables influence the use of consultation/prereferral interventions rather than referral for special education services.

A review of literature related to the preference for and use of referral versus consultation services is presented in the following section. First, a definition and discussion of the use of each service delivery option is presented. A review of literature addressing specific variables that may influence teacher preferences for and actual use of service delivery options is discussed next. Specifically, teacher characteristics, teacher attributions, organizational characteristics, child characteristics, and nature of child problem(s) are
explored in their relevance to selection and use of service delivery options.
REVIEW OF LITERATURE
Teacher Referral for Special Education Services

Teacher referral for special education services has become critical since the mandate of Public Law 94-142, the Education of All Handicapped Children Act, which guarantees the right of all persons to a free and appropriate education. The necessity of referral services leading to special education placement has continued with the passage of more recent revisions of this law, i.e. IDEA. A discussion of the definition of referral to special education, the typical stages of the referral process and the debate of efficacy of special education services follows.

Definition and Process

Special education can be defined as "the segment of the education domain that deals with students experiencing difficulties in the regular system" (Kavale, 1990, p. 868). Thus, referral to special education can be defined as a teacher or parent-initiated request for evaluation to determine if a child meets criteria as an exceptional student in need of special education services.

The special education process generally begins with identification and referral of a child who potentially requires special education services in order to benefit from instruction. Following this referral stage, the process traditionally progresses as follows: (a) an
assessment is conducted, (b) feedback is given to parents about the assessment results, and (c) a decision is made about placement (Silverstein, Springer, & Russo, 1992).

Several authors have discussed the importance of the regular education teacher in determining the need and appropriateness of referral for special services. Once the referral process was initiated, Algozzine, Christenson, and Ysseldyke (1982) found that 90% of referred children were assessed and 70% of these children were placed in special education. An investigation of factors affecting a teacher's use of the referral process for one student over another who is exhibiting similar problems is potentially important. Through knowledge of important variables, it may become possible to determine why one student with roughly equal deficits is not identified whereas another is identified, evaluated, and determined to qualify for services.

When considering students with behavioral/emotional problems in the regular classroom, Walker and Bullis (1991) proposed two reasons for teacher use of the referral process: "(a) to secure assistance for student deficits or excesses that they cannot or will not provide, and (b) to reduce the diversity or heterogeneity of the regular classroom setting, thus making it easier to manage and instruct" (p. 85). Because of the critical step involving teacher decision-making in referring a child for special
services, a full understanding of factors influencing a teacher's decision is important. These variables contribute to a teacher's conclusion that it is in the best interest of both the student and the entire class to refer the child for alternative placement. Potential variables that have been studied which contribute to teachers referring children instead of selecting other options for obtaining help with problem students are considered in a later section of this manuscript.

**Efficacy of the Special Education System**

The refer-test-place process can also be criticized on the "place" dimension. Currently, efforts to reform and/or abolish the current special education system are being widely considered (Lloyd, Singh, & Repp, 1991). Much of the current concern with the special education system centers around the efficacy of special programs or classes in meeting the needs of identified students (Lloyd & Gambatese, 1991). This concern has escalated to a movement in education called the "regular education initiative." A central question of the regular education initiative is whether a complete elimination of the current continuum of services is appropriate (Fuchs & Fuchs, 1991). Given the intensity of this debate and the support of leaders in the fields of education and psychology, it seems clear that the current provision of services using a refer-test-place model is subject to continued scrutiny. Some authors have
proposed that support services be provided to regular classroom teachers to better meet the needs of children with mild deficits and to reduce the number of referrals to special education (Johnson, Pugach, & Hammitte, 1988). A logical method of alternative services is that of consultation to assist regular education teachers in meeting the needs of difficult students in their classroom. A review of literature addressing the consultation process as an alternative form of service delivery follows.

Consultation/Intervention

The use of consultation/intervention is relatively more recent than that of referral for special services. The need for consultative services has increased significantly due to problems resulting from the increasing numbers of students referred who are exhibiting only mild behavior and academic problems (Ponti, Zins, & Graden, 1988). The following section provides a definition of consultation, as well as a review of the efficacy of the process. This discussion is relevant in understanding the rationale and usefulness of the process of consultation as an alternative form of service delivery in schools.

Definition

The definition of consultation most often cited in the literature is that of Medway (1979). He defines consultation as a process of "collaborative problem-solving between a mental health specialist (the consultant) and one
or more persons (the consultees) who are responsible for providing some form of psychological assistance to another (the client)" (p. 276). Hence, school-based consultation is the process engaged in by a teacher (i.e., the consultee) and a school psychologist, social worker, or assessment teacher, (i.e., the consultant) to remediate the problem(s) of a particular student (i.e., the client).

**Efficacy of consultation**

Several research reviews and meta-analyses have demonstrated the efficacy of consultation (Gutkin & Curtis, 1990). In a meta-analysis of 54 consultation studies, Medway and Updyke (1985) reported clear support for the use of consultation in changing consultee and client behavior and attitudes. Although much of the empirical evidence seems to report favorable outcomes of consultation, many of the school-based consultation studies are plagued with methodological problems (Gresham & Kendall, 1987; Medway, 1982) and further research is needed on both the outcome and process of consultation (Zins & Ponti, 1990).

**Variables Influencing Preference for Services**

Several variables have been studied with respect to their relation to teacher preferences for and actual use of different service delivery options. Following is a review of major areas that have been linked to the question of why teachers choose one form of service delivery over another. These bodies of research include: teacher characteristics,
teacher attributions, organizational characteristics, child characteristics, and nature of child problem behavior.

Teacher Characteristics

The first area relevant to why teachers have not embraced the model of prereferral consultation and intervention is research attempting to identify teacher characteristics that influence their preference for services. It has been proposed that consultee characteristics such as knowledge, skill, confidence level, years of teaching experience, life position, authoritarianism, and dogmatism are relevant in a discussion of service delivery preferences (Alpert, Ballantyne, & Griffiths, 1981; Gutkin, 1981; Hawryluk & Smallwood, 1986; Weissenburger, Fine, & Poggio, 1982). A review of studies investigating consultee or teacher characteristics is presented next.

Weissenburger, Fine, and Poggio (1982) conducted an investigation of specific consultant and teacher characteristics and their relation to consultative outcomes. These authors used a five-part questionnaire completed by teachers to investigate variables such as teacher life position, teacher dogmatism, consultant facilitativeness, years of teaching experience, and consultations per year. These variables were considered in regard to their relationship to consultation success. Consultation success was measured using scales to assess
three areas: teacher satisfaction, teacher strength, and problem resolution. Teachers were asked to recall a consultative experience that they clearly remembered and that seemed typical of their experiences with consultants. Teachers were then asked to complete the research questionnaire. Results of multiple correlations and regression analyses indicated several variables that may be important in understanding factors related to consultation outcome. First, teacher perceptions of consultant facilitativeness were most highly correlated with all three measures of consultation success. Second, the authors’ found a negative correlation between teachers’ level of dogmatism and all three measures of consultation success. Third, teacher satisfaction and teacher strength were significantly correlated with teacher reports that they were not okay while others were at the time of the consultation. Finally, years of teaching experience was negatively correlated with teacher strength.

In a second article addressing consultee variables, Hawryluk and Smallwood (1986) proposed that consultee knowledge, skills, cognitions, and affect merit consideration in school-based consultation. The authors discussed that change in the child’s behavior required an intermediate change in the consultee’s behavior. Despite the fact that this was a theoretical article rather than an empirical investigation, Hawryluk and Smallwood’s (1986)
expanded framework in which to consider consultation provided a beginning to generating research hypotheses in considering the importance of consultee variables in consultation.

The literature attempting to identify specific characteristics of teachers that influence their preference for and use of consultation has provided inconsistent results. Gutkin and Ajchenbaum (1984) proposed that a possible reason for this may be the trait-like approach adopted by researchers in the area. These authors suggest that situational variables concerning the aspects of a particular case are possibly a more fruitful avenue for research. This author is in agreement with Gutkin and Ajchenbaum (1984) in that even in the more recent literature, attempts to identify general personality or trait-like variables that exist within teachers have not contributed to a full understanding of why teachers prefer one model of service delivery over another. These variables, investigated along with case-specific variables, may provide answers as to which is more critical in determining teacher preferences for service delivery.

Organizational Characteristics

The relationship of school organizational characteristics and the influence of these characteristics on teacher selection of referral versus consultation services is another area of importance in understanding
teacher preference for and use of services. In an article addressing school effectiveness and special educational needs, Galloway (1985) proposed that some schools facilitate student attainment and others possibly not only contribute to students having special needs, but in fact create these special needs (Galloway, 1985, p. 48). A review of studies considering different aspects of school characteristics follows.

One area of research in terms of school characteristics has been investigations of factors influencing referral decisions. Christenson, Ysseldyke, and Algozzine (1982) conducted a study investigating teacher perceptions of factors influencing referral decisions. Teachers in this study were asked to list variables that either facilitate or impede the referral process in their districts. Results of the study indicate that barriers to referral most often cited were organizational factors such as district rules/guidelines about the delivery of special education services, availability of services, and "hassle" associated with referral. Teachers in the study reported that shortages of services and "hassle" factors such as increased paperwork, meetings, etc. also served as significant barriers to referring students for special placement. Presumably, these variables are important when considering the use of consultation services as well. District policy,
availability of consultants, and "hassle" associated with engaging in the consultation process are all likely variables of influence in whether teachers select consultation versus referral as the preferred form of service delivery.

In a more recent study investigating factors influencing teacher referral decisions in cases involving students with possible mild mental retardation, Wilton, Cooper, and Glynn (1987) found that previous referrals to services and access to psychologists accounted for a significant amount of the variance in predicting teacher referrals. Despite study limitations, this investigation provided some evidence that referring teachers had better access to psychological services than nonreferring teachers. Again, these results lend tentative support to the hypothesis that access to various forms of service delivery may be important in teacher preferences for and actual use of consultation versus referral.

A second area of research in terms of organizational characteristics considers variables such as principal leadership and school climate in predicting the use of consultation services. In an exploratory study designed to investigate the impact of school psychologists’ consultation skills, school climate, and principal leadership on teachers use of consultation services, Bossard and Gutkin (1983) found that consultant skill and
principal leadership behavior accounted for a significant amount of the variance in consultation use. Because of a poor subject to variable ratio in regression analyses, the results of the study are limited; however, the study does serve to provide initial support that organizational variables are important in the use of consultation services.

In a case study investigation, Gutkin, Clark, and Ajchenbaum (1985) concluded that "organizational characteristics have a significant impact on consultation processes." These authors examined case studies of two school-based consultants who were placed in very divergent organizational settings. The impact of organizational factors in each school was discussed in relation to core characteristics of consultation services. Variables considered in this study included principal leadership behavior and school climate. While this study provides preliminary evidence that these organizational variables are important, because of the limitations of case study methodology, more research is needed to determine the actual importance of these variables in teacher preferences for and actual use of services.

**Teacher Attributions**

Another set of variables possibly influencing teacher preferences for services is teacher attributions. Teacher attributions of their own behavior and children's behavior
have been considered in an attempt to explain what causes a teacher to choose one form of service delivery rather than another. Several specific attributional principles have been applied to this question. A basic review of definitions and principles of attribution theory will be presented. Following this review is a discussion of the literature that applies these principles in attempting to address teacher preferences for service delivery.

Definition

An "attribution" is defined as the "inference that an observer makes about the causes of behavior - either his own or another person's" (Bar-Tal, 1978, p.259). Weiner's (1979, 1985) framework for considering attributions and how these relate to specific behavior is considered more complete than others and it enjoys widespread use as the model of choice by educational psychologists (Graham, 1991). Other frameworks for considering attributions as they relate to a wide range of clinical problems are found in the literature investigating areas such as marital interactions (e.g., Fincham, 1985), mother-adolescent conflict (e.g., Grace, Kelley, & McCain, 1993), and parent attributions in relation to children with oppositional and noncompliant behaviors (e.g., Johnston & Patenaude, 1994; Scott & Dembo, 1993). These frameworks, while providing alternative models for consideration, tend to be specific to the literature in which they are used and the types of
research questions most often considered in that literature. Thus, for the purposes of this review, the attribution studies related to the model most frequently applied to the educational literature (i.e., Weiner's model) will be more closely considered.

Weiner's (1979) theory includes an explanation of the relationship of causes to psychological consequences. Causes are classified according to the following dimensions: locus, stability, and control. These three dimensions have empirical support and are considered reliable, generalizable across settings, and meaningful (Weiner, 1986). It is through these causal dimensions that hypotheses about teacher behavior have been put forth. Each of these dimensions will be discussed along with the relevant literature in understanding teacher preferences and selection of service delivery. Before considering causal dimensions, the issue of when persons tend to make causal attributions will be addressed.

Context of a causal search

The question of when persons search for causes of events has been investigated. Wong and Weiner (1981) proposed that people are more likely to search for causes when events are unexpected and frustrating. This has direct relevance in understanding a teacher's reasons for assigning causes to behaviors. Presumably, a child's lack of achievement or inappropriate behavior is considered
unexpected and frustrating for teachers. Out of a class of thirty children, the teacher may have only one or two children who are having problems, thus they may tend to consider this behavior unexpected. Additionally, teachers have most likely attempted some modifications to remediate the problem and these attempts have presumably failed, therefore creating a frustrating situation. It is possible that, at this time, a teacher searches for causal attributions about the child's behavior. These attributions, among other factors, will determine whether the teacher seeks consultation or referral.

**Locus of causality**

Locus is considered the most fundamental distinction between causes, that is, a distinction between internal versus external causes (Weiner, 1986). Heider (1958) was the first to propose that behavior is likely to depend on two sets of factors, those within the individual and those in the environment. Rotter (1966) adopted this dimension and focused much of his research on classifying persons as either internals or externals. More recent research has focused on the differences between one's attributions for his/her own behavior and for the behavior of another.

Jones and Nisbett (1971) proposed that individuals attribute another person's behavior to internal causes, whereas they attribute the same behavior in themselves to external causes. This has led to the conclusion that when
observing others, the most salient aspect is the action itself and this action tends to be attached to the person (Guttentag & Longfellow, 1977). The phenomena of different attributions of behavior depending on whether it is your own or someone else's has been labeled the "fundamental attribution error" (Ross, 1977). This concept has been applied in the literature addressing teacher behavior.

First, internal factors are cited more often by teachers than external factors as causes for both success and failure (Burger, Cooper, & Good, 1982). Second, Medway (1979) found teachers report attributions of serious school problems are most often due to student variables, followed by family/home factors, and then finally, teaching variables. This suggests that in attributing causes, teachers see the problem as existing within the child or the family rather than within the classroom environment.

These findings are consistent with consultant reports indicating that during consultation, teachers often blame child psychopathology or family dysfunction as causes of the child's problem (Waguespack, 1992). This blaming is believed to be indicative of lack of motivation and/or resistance on the teacher's part to attempt interventions.

The presented findings may provide some support that considering this dimension of causality is important when seeking answers about conditions under which teachers select one model of service delivery over another.
Research addressing the relationship between teacher attributions of a child’s behavior due to internal or family factors and teacher preferences for service delivery is needed.

**Stability**

The dimension of stability attributes actions to stable versus unstable causes (Weiner, 1979). The stability of a cause is considered important because it is related to outcome expectancies (Weiner, 1988). Outcome expectancy is defined as the belief that a given behavior will or will not lead to a given outcome (Waas & Anderson, 1991).

The causal dimension of stability has received more attention in the teacher literature than others, possibly because of the relevance of this theory with labeling children for special education services. A review of select studies will attempt to demonstrate the application of this dimension to teacher behaviors.

First, expected outcomes (e.g., inappropriate behavior when inappropriate behavior is expected) are more often attributed to stable factors, whereas unexpected outcomes (appropriate behavior when inappropriate behavior is expected) are attributed to unstable factors (Burger, et al., 1982). This congruency between a teacher’s expectancy and outcome elicits stable attributions from the teacher. Once stable attributions are made, this results in beliefs
about the child's behavior that are highly resistant to change. An illustration of this point is made in the following example.

A teacher may have an expectation that a child is likely to exhibit problem behaviors. This expectation may be due to the child's misbehavior in the past, a belief that the teacher holds about an internal cause of the child's behavior, etc. The child then exhibits the problem behaviors which are congruent with teacher expectations. This reinforces the teacher's belief that the problem will occur again due to stable factors. If in fact the child did not exhibit the problem behaviors, but was expected to do so, the teacher would be likely to dismiss this nonoccurrence of problem behaviors to external factors so that the expectancy is preserved. Two studies provide empirical evidence for this application of the outcome-expectancy relationship.

Lewin, Nelson, and Tollefson (1983) found that even if behavior improves in previously identified disruptive students, teachers' negative attitudes toward these students remain in spite of positive behavior changes. These authors trained student teachers to identify and define a target behavior that was disruptive to them in the classroom. Training was also provided in collecting baseline data and then implementing an "alternative reinforcement of other behavior with
extinction" program for the target child. Teachers were instructed to use a reversal design in which treatment was implemented for seven days, withdrawn for five days, and then re-implemented for five more days. Results of the study indicate that teachers were able to demonstrate changes in target behaviors and that they reported this success. Interestingly, however, when attitudes toward target children were measured across groups, attitudes tended to remain highly stable. Thus, teachers who reported and demonstrated positive changes in child behavior were no more likely to indicate a more positive attitude toward the target children than the teachers in the control group who had not seen improvements.

In a second study examining special education labels, Foster and Ysseldyke (1976) found that teachers viewed children with labels as deviant and these beliefs were resistant to change even when information that was incongruent with the label and this belief was provided.

The previous studies and applications of the causal dimension of stability yield several relevant implications that have been discussed by authors in other areas of psychology. First, when attributions are made to stable factors, the causes are considered less likely to be capable of modification and optimism regarding making changes in the person's behavior is reduced (Sharrock, Day, Qazi, & Brewin, 1990). Thus, when a child's behavior is
considered stable, teachers are likely to be less optimistic about their ability to implement effective interventions to change behavior. This has direct relevance to whether teachers will find interventions acceptable and whether they will implement them with integrity (Waas & Anderson, 1991). Further, if interventions are attempted because of school policy or state guidelines, the likelihood of improvements in the child’s behavior changing the teacher’s beliefs about the child’s problems is not encouraging. It is evident that something other than demonstrating child behavior change is necessary in order to change teachers’ beliefs about the best method of service delivery for the child.

In considering conditions under which a teacher is likely to choose consultation versus referral for a given case, the dimension of stability in attribution research appears to be an important variable. If a teacher perceives a child’s behavior as stable and resistant to change, the teacher is probably much less likely to prefer consultation over referral. Because teachers are not expecting the child’s behavior to change, and they possibly ignore change even if it occurs, a change in the child’s environment (i.e., special education placement) may be seen as the appropriate option.
Controllability

The casual dimension of control has been adopted by Weiner (1979) from earlier researchers. Control is defined as the person's beliefs about the extent to which he/she can "overcome barriers effectively and act upon the environment" (Weiner, 1986, p.49). The relationship between teachers' preferences for service delivery and their perception of control over a student's problem behavior has been directly investigated.

Gutkin and Ajchenbaum (1984) conducted an analogue study investigating teachers' perception of control over childrens' acting out, withdrawal, and academic problems. These authors had randomly selected elementary school teachers complete a modified form of the Pupil Problem Behavior Inventory which included a Preference for Consultation Scale and a Degree of Control Scale. These authors found that higher perceptions of control were significantly related to reported preferences for service delivery and that the magnitude of this correlation was strong (-.82). Specifically, teachers who reported higher perceptions of control over a child's problem indicated a higher preference for consultation than did teachers who reported less control.

Using a different method, Gutkin and Hickman (1987) attempted to replicate the findings of Gutkin and Ajchenbaum (1984). These authors attempted to increase
teachers' sense of control over a child's chronic failure to turn in homework. Teachers who were provided with information that increased their sense of control over the child's homework problem expressed a greater desire for consultation, whereas teachers who were provided with information that decreased their sense of control expressed a preference for referral services.

These two studies provide evidence that a teacher's perception of control over the child's problem is relevant to an understanding of his/her preference for consultation or referral. These studies are limited by their analogue nature, thus future research involving actual cases should address the relationship between teachers' sense of control and their preferences and actual use of one method of service delivery over the other.

Another aspect of the controllability dimension that has been considered in relation to teacher behavior is teacher perception of the child's ability to control his/her own behavior. For example, Cooper and Lowe (1977) hypothesized that teacher behavior (i.e., praise or blame) varies depending on how much control or personal responsibility the teacher feels the child has over his/her own behavior. Additionally, in a study investigating teachers' attributions for severe school problems, Medway (1979) found that teachers generally attribute causes of serious school problems to student factors. Also in the
same study, Medway (1979) demonstrated that teachers criticized students who were perceived as lacking motivation most often. These studies suggest that teacher perceptions of a student’s control over his/her own behavior may be important in the way a teacher interacts with that particular student. Further, this may have implications in whether the teacher chooses to refer a child with problem behaviors rather than intervening in the classroom.

**Child Characteristics/Problem Type**

Child variables and characteristics of a child’s problem behavior are another area of research which has been linked to teacher preferences for services. This literature will be reviewed next.

**Child characteristics**

Specific variables such as race, sex, socioeconomic status, and familial stability have been studied in terms of their relevance to special education referrals/referrals for psychological services. Generally, the data has been inconclusive in terms of determining child demographic variables that are important in predicting whether a child is referred for any type of psychological services.

For example, Low and Clement (1982) found that SES was significantly related to classroom behavior, whereas race was not. In this same study, authors conducted a discriminant analysis in which race, SES, and observed
classroom behavior were used as predictors of referral for special education. The authors found the combination of these variables only marginally acceptable in prediction accuracy \( (p=.06) \), with classroom behavior being more important than either race or SES. Low and Clement (1982) also demonstrated that child on-task behavior was by far the largest contributor in the prediction model for determining special education referral. These results suggest that variables other than child characteristics are potentially important in predicting referral to special education.

In a recent study of characteristics of children referred for psychological services, neither race nor SES were found to be significant discriminators between groups of referred and nonreferred children (Harvey, 1991). The negative findings of SES contradict the findings of Low and Clement (1982). Harvey (1991) found that groups were significantly differentiated by the following combination of variables: math achievement, sex, race, and a father of the same name in the household.

As stated previously, the literature addressing specific child variables in predicting referral for special services has been inconclusive. Other authors have studied characteristics of the problem behaviors themselves in relation to their relevance in special education referrals.
**Problem Type**

Hutton (1985) considered the reasons presented by teachers for referring children with problems to special education. This author found the majority of reasons for referral were behavioral rather than academic with the most often cited reason being "poor peer relationships." Other frequently listed problems were "displays frustration," "below academic expectations," and "disruptive."

In a study comparing ratings of school psychologists, special education teachers, and regular education teachers, Siegel (1981) found that students exhibiting conduct problems (e.g., disobedience, disruptiveness, etc.) were prioritized for referral by all groups over personality problem behavior (e.g., social withdrawal, shyness, aloofness, etc.). Siegel (1981) explains this finding using ecological theory in which conduct behavior problems represent the poorest person environment fit and thus, necessitate referral.

Beyond types of problems that are referred more frequently, other authors have addressed teacher tolerance of behaviors and perceptions of the child’s effect on the rest of the class. In a study addressing teacher perceptions of the relative disturbingness of certain behaviors, Algozzine (1976) found that regular education teachers may be less tolerant of disturbing behaviors than special education teachers or special education teachers
in training. Algozzine and Curran (1979) also investigated the relationship between teacher tolerance of certain behaviors and their judgements about children exhibiting those behaviors. In the discussion section, these authors relate their findings to proposed hypotheses that children who are exhibiting behaviors which are less tolerable to teachers are more likely to disturb the classroom ecology, and thus, are more likely to be considered problems.

When considering whether disruptive versus nondisruptive classroom contexts affected teacher perceptions of problem behaviors, Safran and Safran (1985) found that significant differences occurred for ratings of contagion, particularly within the disruptive context. Contagion or the so-called "ripple effect" of the problem student's behavior on other students in the classroom was shown to be critical in this study. The authors suggest that because teachers must consider the overall learning of the group, they are least accepting of disruptive behavior that spreads to a number of students.

In a study directly investigating the relationship of perceived problem severity to teacher preference for services, Gutkin, Singer, and Brown (1980) found a significant positive correlation between teacher preference for consultation and problem severity. These authors concluded that although the magnitude of the correlation coefficient was not large, these results do support
increased preference for consultation in cases involving less severe problems. Thus, in considering teacher preferences for one form of service delivery over another in case-specific examples, an inclusion of teacher perceptions of child problem severity appears important.

Each of these findings in the areas of child variables and child problem characteristics is potentially relevant in a discussion of teacher preferences for and actual use of service delivery options. Child characteristics and problem type and the effects of student behavior on the entire class have all been shown to affect teacher perceptions and even referral for special services. It is likely that many of these same child variables are important when considering significant predictors of which form of service delivery is preferred and/or used. Variables such as teacher perceptions of problem behavior, types of problem behaviors, on-task behavior, disturbingness of child behaviors to teachers, and effects of child behavior on classroom conduct may be important areas to address when considering preferences for service delivery.

Problem Summary

In the review of literature related to teacher preferences for and actual use of consultation versus referral, several problem areas were determined. First, while a number of variables have been empirically
investigated, these variables for the most part have been studied in isolation and methodologies have varied considerably. Thus, a true comparison and/or weighting of variables important in teacher preference for one form of service delivery over another has not been possible. Because of this, information guiding practicing school psychologists as to what variables should be considered and possibly intervened upon with actual cases has not been forthcoming.

Secondly, our knowledge of the relative importance of certain variables in determining the actual use of various forms of service delivery has been limited. While studies have been conducted examining variables influencing teacher use of referral and consultation, these studies again, for the most part, have considered referral and consultation separately and no global picture of the relationship of these variables has been generated.

In summary, it has been difficult to incorporate the implications of previous findings toward a satisfactory understanding of conditions under which teachers select one type of service delivery over another. Likewise, answers about whether teacher preferences (and variables influencing teacher preferences) translate into differences in actual teacher behavior are unknown. A more global picture in which important variables are studied in a comprehensive format is needed.
In light of these problems, the study served to extend our knowledge of variables that possibly influence teacher preferences for one type of service delivery over another. Similarly, the study provided critical information about which variables in actual cases are most important in determining final outcomes.

Purpose of the Study

The study had two major goals. The first goal was to determine conditions under which teachers indicate a preference either to refer children for psychological/medical evaluation, or to consult with a psychologist toward the goal of developing an intervention for the classroom. Understanding variables that influence teacher preferences for service delivery is important in developing acceptable prereferral consultation and intervention models. It is through this knowledge that researchers will be in a position to make useful recommendations for school practitioners who are faced with the task of encouraging teachers to pursue a consultative approach to remediating behavior problems in schools.

The second purpose was to determine whether specific information collected from teachers in the early stages of making a referral for services predicts the final outcome of those cases. Here the focus was on variables affecting whether a child was actually referred to special education,
a teacher requested consultation services, or a combination of services was ultimately used.

Primary Research Questions

The study was designed to investigate two major research questions. First, were there significant differences between cases in which teachers indicated a preference for: (a) referral for pediatric and/or psychological evaluation, versus (b) referral for consultation/intervention in the classroom? Which variables best differentiated these two groups of cases? Second, to what extent were final outcomes of referred cases predicted by information collected in the early stages of the decision-making process?
METHOD

Overview

As previously stated, the purpose of the study was to collect information from various sources about a particular case referred for behavior problems. The study was divided into four phases in which information was collected from the different sources. After collection of measures from each source, data analyses were conducted to determine which variables were most critical in teacher preferences for service delivery.

Phase One - Teacher Data Collection

Method

Overview

The purpose of Phase One of the study was to collect information completed by teachers about children exhibiting behavior problems in the classroom. Information about teacher attributions, teacher demographics, teacher perceptions of problems, and teacher preferences for service delivery was included. Sixty-seven elementary and middle school teachers (grades K-8) served as participants in the study. Participants were asked to complete several paper and pencil measures. These measures were presented in a packet containing relevant information about the purpose of the study and requesting voluntary consent to participate (See Appendix A). Once the packet was completed, information from the questionnaires was scored.
Participants

A total of 67 regular education elementary and middle school teachers (grades K-8) employed in four public schools in southeastern Texas served as participants in the study. In order to participate, teachers must have been in the process of requesting assistance for a student in their classroom who was exhibiting significant behavior problems. Requests for assistance were made to either the school’s child study team, school counselor, or behavioral consultant/school psychologist. Participating teachers completed measures prior to assessment or intervention by school personnel whose role was to assist with difficult students.

Instrumentation

Teacher Demographic Questionnaire. The demographic measure requested information about the following: (a) age, (b) sex, (c) highest degree earned, (d) type of teacher certification, (e) number of years employed as a teacher, (f) grade level taught, (g) number of cases referred to special education and level of satisfaction with the evaluation process in those cases, and (h) number of cases referred for consultation and level of satisfaction with the consultation process in those cases (see Appendix B).

Forced-Choice Preference Questionnaire. Teacher preferences for service delivery was measured using
methodology similar to Gutkin and Hickman (1988). Participants were provided definitions of referral for (a) psychological/medical evaluation and (b) consultation/intervention. Teachers were then asked to select the type of service that they believed to be the most appropriate for the referred case (see Appendix C).

**Outcome Expectancy Measure.** A measure of teachers' beliefs about the outcome expected with each type of service was developed for the purpose of the study. This measure included two sections: Consultation Outcome Expectancy (COEM) and Referral Outcome Expectancy (ROEM). Each section requested information regarding the teacher's beliefs about outcome given the particular type of service delivery option (i.e., what was likely to be the final result in terms of process selected). Specifically, teachers were asked to rate possible outcomes of each method on a scale of 0 to 4 indicating the likelihood that the listed outcome would occur (see Appendix D).

The scale was constructed in a manner similar to that of the Treatment Expectancy Scale (Waas & Anderson, 1991). The Treatment Expectancy Scale was developed to measure children's outcome expectancies for school interventions. The current measure was constructed using similar dimensions to the Treatment Expectancy Scale. It reflected teacher outcome expectancies for two service delivery options (e.g., referral for evaluation and consultation/
intervention). Reliability estimates were calculated for each method of service delivery using Cronbach's coefficient alpha. Estimates of .78 for COEM and .96 for ROEM were obtained.

Teacher Attribution Scale. The Teacher Attribution Scale (TAS; George, 1993) is a twenty item instrument constructed to measure teacher attributions about the causes of a child's problem. Items are rated in a Likert format ranging from "never true" to "always true." The TAS has four factors which follow Weiner's dimensions of teacher control, child control, stability, and locus (See Appendix E). The four factors account for 45.1% of the total variance. Reliability estimates on the four factors range from .66 to .70 suggesting moderate reliability (George, 1993). Reliability estimates obtained during the present study ranged from .73 to .83 providing additional evidence for the scale's internal consistency.

Willingness to Help Scale. The Willingness to Help Scale (WTH; Witt, 1994) is a ten item instrument developed to measure teacher willingness to assist children with behavior problems as well as teacher perception of the severity of those problems (See Appendix F). Preliminary psychometric data indicate that the WTH is moderately reliable (Cronbach's coefficient alpha = .77) with a stable two factor structure.
Teacher's Report Form. The Teacher Report Form (TRF; Edelbrock & Achenbach, 1984) is a widely respected behavior checklist completed by teachers that emphasizes empirical classification of problem behaviors. It is increasingly becoming a standard assessment instrument in clinical and school settings (Beck, 1987). The Behavior Problem Scales of this measure were completed by teachers for the purpose of this study. Each of the Behavior Problem Scales was derived through factor analysis using scales completed by teachers on children referred to mental health clinics across the country. The measure yields significantly higher scores for clinic-referred children when compared to normals (Beck, 1987). Reliability and validity studies using the CBCL have been extensive and generally supportive (Francis & Ollendick, 1987).

Information reported in the behavior problem section of the TRF is divided into two broad groupings, internalizing and externalizing disorders. These broad-band groupings are further subdivided into several syndromes (e.g., anxious/depressed, social problems, withdrawn, etc.). The syndromes differ depending on the age and sex of the child. The scores in each of the syndrome areas are converted to T-scores so that the child's scores in each area can be compared to a normative sample.
Procedure

Data Collection. Teachers who referred a child with behavior problems to either special education personnel or persons who served in a consultant role on the campus were asked to participate in the study. Teachers completed a consent form, a teacher demographic questionnaire, and the following measures: TAS, WTH Scale, FCPQ, OEM, and TRF.

Once teacher packets were completed and returned to the consultant, each measure was scored and the results organized on a summary data sheet.

Scoring of Research Measures. On the FCPQ, the teacher was asked to select the optimum form of service delivery for the referred child. The teacher’s response served as the first measure of preference for service delivery and was indicated on the summary data sheet.

The OEM was scored by summing the total ratings for each of the methods of service delivery (e.g., consultation and referral for evaluation) in the measure and obtaining a total Consultation Outcome Expectancy Measure (COEM) score and a Referral Outcome Expectancy Measure (ROEM) score.

The TAS was scored by summing the items in each of the four factors to obtain a total score on each factor. Thus, a total score was obtained for (a) Teacher Perception of Control, (b) Locus, (c) Child Control, and (d) Stability.

The WTH Scale was scored by summing the ratings across items on each of the two factors to obtain a total score on
each factor. A total score was thus obtained for (a) Teacher Willingness to Help and (b) Teacher Perception of Problem Severity.

The Behavior Problem Subscales of the Teacher Report Form were scored using the computer scoring program provided by the authors. A total internalizing subscale score (TRF-I) and a total externalizing subscale score (TRF-E) were obtained for each child. Additionally, a total behavior problem score across all items (TRF-T) was computed by the computer scoring program.

Phase Two - Organizational Data Collection

Method

Overview

The purpose of Phase Two was to collect information about organizational variables in the school where the referring teacher worked. All faculty and staff at participating schools were asked to complete measures about the school climate and the process of obtaining help with a child exhibiting behavior problems in the school.

Participants

All faculty and instructional staff employed at schools in which teachers referred behavior problems to the behavioral consultant/core team were asked to participate in the study. The total number of participants ranged from 19 to 39 (mean = 30) at each of the four participating
schools. Return rates ranged from 38% to 74% (mean - 54.5%) across the schools.

Instrumentation

Charles F. Kettering Ltd. School Climate Instrument. The modified version of the Charles F. Kettering Ltd. School Climate Instrument (CFK; Johnson, Dixon, & Robinson, 1987) is a popular measure of school climate that has been used to gather information for administrative planning and curriculum revision. The instrument is designed to measure an individual's set of global perceptions about the school climate where he/she works. The CFK originally was reported to contain eight subscales; however, more recent factor analyses using a large sample of teachers and administrators suggest an empirical basis for three factors. The modified three-factor scale contains forty items yielding the following factors: Factor I - School Renewal and Caring, Factor II - Respect and Trust, and Factor III - Academic and Social Growth and Cohesiveness. The first factor was used for the purposes of this study because this factor had an eigen value greater than one in the factor analytic study and this factor alone accounted for 72.4% of the total variance of the measure. This factor, School Renewal and Caring, is comprised of 9 questions and has a Cronbach's alpha of .90. Items from this first factor were summed to yield a total measure of school climate in this study.
Organizational Perception of Access to Services. A measure of staff perceptions of access to services for students with behavior problems was developed for the purposes of this study. The OPAS, a four-item measure, consisted of two items requesting information about the quality of consultation and referral for special education services in the school. Two items also addressed the amount of hassle associated with referring a child for each of the services listed previously (See Appendix G).

Procedure

Data Collection. All teaching staff at each of the four participating schools were asked to complete the two research measures. The measures were placed in the teachers' mailboxes along with a note asking that they be completed and returned to a general collection box by a specified date. The actual length of time each school was given to return the surveys was determined by the contact person at the school. Following the return of the surveys, a drawing was held at each school for a twenty-five dollar cash prize as an incentive to complete and return the survey.

Scoring of Research Measures. The CFK Factor I was scored by summing ratings of all items to yield a total score. This score was entered into the final data analyses as the measure of school climate for each respective school.
The OPAS was scored by obtaining a total score for each of the methods of service delivery (e.g., consultation and referral). Item two for each service was reverse-scored, therefore a higher score for each method indicated that the service is effective and easily accessible on the school's campus.

Phase Three - Student Data Collection

Method

Overview

The purpose of Phase Three was to obtain direct observation data about the referred child's problem behaviors in the classroom setting. A school psychology graduate student was trained to conduct the observations for the purposes of this study. This trained observer conducted three ten minute classroom observation using a 10-second partial interval recording system. Target behaviors included on-task versus off-task behavior. The impact of the student's behavior on other students and the teacher was also observed and recorded. A total percentage of the intervals the student was "off-task" was then computed. Additionally, a measure of the number of intervals the student's behavior disturbed other students and the teacher was recorded.

Observer Training

A school psychology graduate student was trained to serve as the observer for this study. This observer was
paid hourly to conduct the observations. Training consisted of reviewing definitions of on-task and off-task behavior, as well as definitions of peer disruption and teacher attention. The observer was considered trained when 80% reliability on the off-task measure was obtained in actual classroom observations using the trainer as a comparison. Reliability estimates were computed throughout the course of the study to ensure the observer continued to record behavior in the manner specified by the study. This was accomplished by the trainer and observer observing students on twenty of the sixty-seven cases at three check points (i.e., the beginning, middle, and end of data collection) during the course of the study. The reliability coefficients (agreements/total agreements + disagreements) computed on the twenty cases ranged from 77% to 98% with an average reliability estimate of 89.5% over the twenty cases.

Participants

Students who were referred because of behavior problems served as participants in this phase. In order to participate, students must have been referred for behaviors that were observable in the classroom setting, rather than for behaviors occurring in other school settings. Students were identified by the teacher without providing identifying information such as full name, etc. No direct contact with the target student was initiated.
**Procedure**

The procedure consisted of a trained observer entering the classroom at a time specified by the teacher as a time when the problem behaviors were likely to occur. The student was identified to the observer by the teacher without the class's knowledge. A ten-second partial interval recording procedure was employed. The target student was observed for two consecutive intervals and the students immediately surrounding the target student (i.e., to the right, left, front, and rear) served as comparisons during every third interval. The observations consisted of a ten minute sample of behavior on three separate occasions. An average percentage of the intervals spent off-task was calculated and used in the data analyses.

Another measure obtained during the ten-minute observation periods was the number of intervals the target student's off-task behavior was followed by off-task behavior of a comparison student. A total number of peer disruptions was computed for each observation session and an average over the three sessions was computed to serve as the variable for peer disruption in the final analyses.

A final measure obtained during the observation periods was the number of intervals the teacher attended to the target student's off-task behavior. Each time the teacher reprimanded or redirected the student, this was tallied by the observer. A total number of occurrences of
teacher attention was computed for each session and an average number of teacher attentions over three sessions was determined and used in the analyses.

Phase Four - Pupil Appraisal Data Collection

Method

Overview

The purpose of Phase Four was to collect information about school and teacher referral rate, to determine the final disposition of cases referred in Phase One, and to assess the referring teacher's willingness to attempt interventions in the classroom. Pupil appraisal staff were asked to provide information about referred cases in order to obtain accurate information about referral rates and case outcomes.

Participants

Pupil appraisal personnel (i.e., diagnosticians, behavioral consultants, and school counselors) employed at each of the four schools in which teachers referred cases in Phase One were asked to participate in the study. The number of participants at each school varied from two to three depending on the willingness of the personnel to participate.

Instrumentation

Data Collection Form. A data collection form was completed by the school counselor about the number of cases referred to the school's core team and the number of
students attending the school. The total number of cases referred to the school's core/child study team was divided by the total number of students enrolled in the school. This quotient served as the measure of school referral rate. Each school counselor was also asked to determine the total number of referrals in the past year made by each participating teacher. This total served as the measure of teacher referral frequency (See Appendix H).

**Intervention Attempts by Teachers.** A measure of teacher willingness and ability to follow through on recommended consultant and/or team interventions was developed for the purposes of this study. This measure, titled Intervention Attempts by Teachers (IAT), requested information from outside sources (i.e., school diagnostician, behavioral consultant, or counselor) about a teacher's typical behavior in attempting interventions for behavior problem cases. The number of measures collected on each particular teacher ranged from two to three depending on the willingness of school personnel to complete the measure. In all cases, school personnel completing the measure had worked with the teacher for a minimum of six months prior to completion. The IAT yielded a total score of three to fifteen (items two and three were reverse-scored). Average scores on this measure were computed when more than one measure was completed by school personnel for any teacher. A higher score on this measure
indicated that a teacher was rated by colleagues as more willing and effective in implementing recommendations in the classroom (See Appendix I).

**Final Case Outcome Reporting Form.** A final outcome form was completed by pupil appraisal staff for each of the referred cases in Phase One. The form was designed to provide information about which method(s) of service delivery were attempted during the school year, (i.e., referral for evaluation only, consultation/intervention and referral combined, or consultation/intervention only; See Appendix J).
RESULTS

Preliminary Analyses

In order to describe the sample of participating teachers, descriptive statistics were computed for the demographic data obtained. Of the sample of 67 teachers participating in the study, 71% held Bachelor’s degrees and 28% held Master’s degrees. Years of experience ranged from one to twenty-six, with a mean of 10.8 years experience for the sample. In this sample of teachers, 55% had previously requested consultation and 49% had previously requested referral for special education and/or medical evaluation.

For actual cases referred by teachers, 65 cases included a correctly completed Forced Choice Preference Questionnaire (FCPQ). Of these cases, 43% (n = 28) indicated a preference for referral and 57% (n = 37) indicated a preference for consultation.

In terms of the breakdown of final case outcomes, data were available in 60 total cases. Seventeen percent (n = 10) of cases were referred for evaluation, 20% (n = 12) used both consultation and referral services, and 63% (n = 38) utilized consultation/ intervention only.

Primary Research Questions and Analyses

Question 1: Which variables accounted for the most variance in expected outcomes resulting from referral for medical and/or psychological evaluation versus consultation/ intervention?

A stepwise multiple regression analysis (Tabachnick & Fidell, 1983) was conducted for each of the methods of
service delivery. The Referral Outcome Expectancy score (ROEM) served as the criterion variable in the first equation, whereas the Consultation Outcome Expectancy score (COEM) served as the criterion variable in the second equation.

Planned preliminary analyses were conducted using secondary variables including demographic information, as well as school and teacher referral rate. Pearson product correlation coefficients were computed between ROEM and COEM scores and each demographic variable, as well as school and teacher referral rate. The Bonferroni procedure (alpha/k comparisons) was employed to control for the number of correlations being computed. No secondary variables were found to be significant in the correlational analyses; thus, demographic data, and school and teacher referral rate were excluded from the primary analysis.

In order to ensure a conservative variable to subject ratio in the primary regression equation, variables were grouped into related sets for preliminary regression analyses (e.g., teacher attribution variables, actual classroom behavior variables, etc.) in order to make a determination about which single variable had the best support for use in the primary analyses. The variable within each subset that was found to account for the most variance in each preliminary analysis served as the representative measure of each set for the regression.
analyses designed to answer the primary research question. In this manner, the empirically determined best measure from each set of variables was selected for use in the primary analyses. In sets where no variables were found to account for a significant amount of the variance, the entire set was excluded from the primary analysis.

More specifically, the preliminary regression analyses were computed by using the ROEM and COEM scores as criterion variables. Stepwise multiple regression analyses were computed separately for each pre-identified set using the following scores as predictors: (a) teacher attributions: Teacher Attribution Scale factor scores I-IV (TAS I-IV), (b) willingness to help: Willingness to Help Scale factor scores I - II (WTH I - II), (c) problem severity: Teacher Report Form Total Score, Externalizing and Internalizing Factor scores (TRF-T, TRF-E, TRF-I), (d) classroom behavior: mean number of intervals the student’s off-task behavior disrupts other students (peer disruption), the mean total percentage of intervals the child was observed to be off-task in classroom observations (off task), and the mean number of intervals the child was observed to disrupt the teacher (teacher attention) across observations, (e) quality of referral and consultation services: Organizational Perception of Access to Services (OPAS) referral and consultation scores. The variables school climate and teacher willingness and ability to
follow through on interventions did not require preliminary analysis for inclusion in the primary analyses because each variable was represented by the total score on the each measure (i.e., there were no sets of scores to select from prior to analysis).

Referral Outcome Expectancy Analyses

Preliminary Analyses. Preliminary stepwise regression analyses using ROEM scores as the criterion variable resulted in significant predictors being identified in two of the five sets of predictors. First, of the attribution variables, Teacher Control (TAS Factor I), was found to account for a significant amount of the variance in ROEM scores ($R^2 = .17$, $F(1,60) = 12.72$, $p < .001$). No other factors of the attribution measure were found to be significant. Second, of the willingness to help variables, Behavior Problem Severity (WTH Factor II), was also found to account for a significant amount of the variance in ROEM scores ($R^2 = .18$, $F(1,59) = 13.41$, $p < .001$) and thus included in the primary analysis. Preliminary analyses investigating the significance of other variables measuring teacher perceptions of severity of child behavior (TRF-I, TRF-E and TRF-T) did not yield significant predictors. Likewise, when regressing actual child classroom behavior (i.e., off-task behavior, peer disruptions, and teacher attention) on ROEM scores, no significant predictors were found. Similarly, neither of the staff perceptions of
access to and quality of services variables (OPAS scores) were found to account for a significant amount of the variance in ROEM scores.

**Primary Analysis.** A stepwise multiple regression analysis was performed using the ROEM Score as the dependent variable and the following predictors: (a) teacher attributions: TAS-I, Teacher Control, (b) willingness to help: WTH-II, Behavior Problem Severity, (c) school climate, and (d) teacher willingness and ability to follow through on interventions: IAT.

During the first two steps of the regression analysis, Behavior Problem Severity ($R^2 = .18$, $F(1,59) = 13.41$, $p < .001$) and Teacher Control ($R^2 = .07$, $F(2,58) = 5.02$, $p < .05$) were statistically significant and together accounted for approximately 25% ($F(2,58) = 9.67$, $p < .001$) of the variance in ROEM scores. No other variables contributed significant variance; therefore, they were not included in the equation. Thus, the best predictors of teachers' beliefs of positive outcomes resulting from the referral process were their perception of the severity of the student's problem and their beliefs about being able to affect the student's behavior.

**Consultation Outcome Expectancy Analyses**

**Preliminary Analyses.** Preliminary stepwise regression analyses using COEM scores as the criterion variable resulted in significant predictors being identified in only
one of the five sets of predictors. Again, of the teacher attribution variables, Teacher Control (TAS Factor I), was found to account for a significant amount of variance ($R^2 = .17, F(1, 62) = 12.43, p < .001$) in COEM scores. None of the other attribution variables were found to be significant in preliminary analysis. Preliminary analyses investigating the significance of the following groups of variables: behavior problem severity, classroom behavior, quality of services, and willingness to help did not yield significant predictors, thus these variables were excluded from the primary analysis.

**Primary Analysis.** A stepwise multiple regression analysis was performed between the COEM Score as the dependent variable and the following as independent variables: (a) teacher attributions: TAS-I, Teacher Control, (b) school climate, and (c) teacher willingness and ability to follow through on interventions: IAT.

Teacher attributions (TAS-I, Teacher Control) was statistically significant ($F(1, 62) = 12.43, p < .001$) and found to account for approximately 17% of the variance in COEM scores. No other variables in the analysis significantly affected the predictive power of the equation. Thus, teacher beliefs about their ability to affect the student’s behavior significantly predicted teacher ratings of expected outcomes resulting from the use of consultation services.
Question 2: Which variables best discriminated teachers who selected referral for evaluation or consultation as the most appropriate service delivery option for a particular case?

Planned preliminary analyses were conducted using secondary variables including demographic information, as well as school and teacher referral rate. Correlation coefficients were computed between the Forced Choice Preference Questionnaire (FCPQ) and each demographic variable, as well as school and teacher referral rate. Again, the Bonferroni procedure was employed to account for the number of correlations being computed. No secondary variables were found to be significantly correlated with the FCPQ; thus, demographic data, and school and teacher referral rate were excluded from the primary discriminant function analysis.

In order to ensure conservative variable to subject ratios in the primary discriminant function, variables were grouped into logical sets for preliminary stepwise discriminant functions in order to make a determination about which variables from each set were best supported to be used in the primary analyses.

More specifically, stepwise discriminant functions were computed separately for each set using the following scores as predictors: (a) teacher attributions: TAS I-IV, (b) willingness to help: WTH I-II, (c) problem severity: TRF-T, TRF-E, and TRF-I, (d) quality of referral and consultation services: OPAS referral and consultation
scores. Of these sets, the variable found to be the best predictor within the set was included in the primary discriminant function analysis.

Results of the preliminary discriminant functions yielded significant overall results for teacher attributions (TAS-I and TAS-III), and willingness to help (WTH-I and WTH-II). The variable accounting for the most variance in each set (i.e., TAS-III and WTH-II, respectively) was used in the primary analysis. Results of discriminant function analyses investigating teacher perceptions of severity of child behavior and staff perceptions of access to and quality of services were not found to be significant, thus these variables were excluded from the primary analysis.

The primary discriminant function analysis was performed using the following variables as predictors: (a) teacher attributions: TAS-III, Child Control, (b) willingness to help: WTH-II, Behavior Problem Severity, (c) school climate, (d) teacher willingness and ability to follow through on interventions: IAT, (e) peer disruptions: mean number across observations, and (f) off-task behavior: mean percentage. The dependent variable was indicated preferences on the FCPQ, either referral or consultation.

The discriminant function analysis yielded one significant function (chi-square of 24.72, p < .001). As seen in Table 1., three of the six predictors in the
primary analysis significantly contributed to the overall function: Child Control (TAS-III), Behavior Problem Severity (WTH-II), and off-task behavior (mean percentage of intervals student was off-task in classroom observations). This discriminant function had a canonical correlation of .58 indicating that 34% of the variance in preferences for services can be accounted for by this model including three of the six independent variables. Using the three predictors, 71.88% of cases were correctly classified by the equation.

Table 1

Summary of DFA results predicting service delivery preference

<table>
<thead>
<tr>
<th>Variable</th>
<th>Wilks' Lambda</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Control (TAS-III)</td>
<td>.79910</td>
<td>15.588</td>
<td>.0002</td>
</tr>
<tr>
<td>Behavior Problem Severity (WTH-II)</td>
<td>.71691</td>
<td>12.043</td>
<td>.0001</td>
</tr>
<tr>
<td>Child Behavior (Off-Task)</td>
<td>.66460</td>
<td>10.093</td>
<td>.0001</td>
</tr>
</tbody>
</table>

Group sizes were used to estimate prior probabilities of group membership. Based on group size alone, it would be predicted that 42% of cases were in the referral group and 58% were in the consultation group. The derived classification function correctly identified 63% of
referral cases and 78.4% of consultation cases indicating an improved prediction rate using the three significant predictors.

**Question 3:** Which variables collected early in the referral process reliably discriminated final outcomes of cases?

Secondary variables were included in a separate correlational analysis. Correlation coefficients were computed between final case outcome and each demographic variable, as well as school and teacher referral rate. Again, the Bonferroni procedure was used to adjust the alpha to account for the number of correlations being computed. No secondary variables were found to significantly correlate with final case outcome, thus these variables were excluded from further analyses.

As in previous analyses, variables were grouped in logical sets for preliminary stepwise discriminant functions. Discriminant functions were computed separately for each set of variables using final case outcome as the grouping variable. Predictors in each analysis were the following: (a) teacher attributions: TAS I-IV, (b) willingness to help: WTH I-II, (c) problem severity: TRF-T, TRF-E, TRF-I, (d) quality of referral and consultation services: OPAS referral and consultation scores (e) teacher expected outcomes of services: ROEM and
COEM total scores, and (f) *classroom behavior*: peer disruption, off-task, teacher attention.

Results of the preliminary discriminant functions yielded significant overall results for the following: willingness to help (WTH-I) and quality of both consultation and referral services (OPAS consultation and referral). Of the OPAS variables, OPAS consultation accounted for more variance, thus it was selected as the representative measure of quality of services. No significant predictors were found for other preliminary analyses, thus all other sets of variables were excluded from the primary analysis.

A stepwise discriminant function analysis was computed in order to attempt to discriminate cases into the following groups: Group I - referral only, Group II - a combination of consultation and referral used for the case, and Group III - consultation/intervention only. These groups served as the dependent variables in the equation. The following variables were used as predictors: (a) *willingness to help*: WTH-I, (b) *school climate*, (c) *teacher willingness and ability to follow through on interventions*: IAT, and (d) *quality of consultation services*: OPAS Consultation score.

The discriminant function analysis yielded one significant function (Chi-square (6) = 48.89, p < .001).
This first discriminant function accounted for 56% of the variance among groups. As Table 2 indicates, three of four predictors significantly contributed to the overall discriminant function equation. The stepwise method suggested that the primary variables in distinguishing among the three groups were quality of consultation services (OPAS consultation), followed by willingness to help (WTH-I), and finally, school climate.

Table 2

Summary of DFA results predicting actual case outcome

<table>
<thead>
<tr>
<th>Variable</th>
<th>Wilks' Lambda</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of Consultation Services</td>
<td>0.56023</td>
<td>21.979</td>
<td>0.0001</td>
</tr>
<tr>
<td>Willingness to Help (WTH-I)</td>
<td>0.47148</td>
<td>12.550</td>
<td>0.0001</td>
</tr>
<tr>
<td>School Climate</td>
<td>0.41109</td>
<td>10.074</td>
<td>0.0001</td>
</tr>
</tbody>
</table>

Using the derived discriminant function equation, 74.58% of cases were correctly classified. Actual group sizes were used to estimate prior probabilities of group membership as follows: Group I - 15%, Group II - 20% and Group III - 65%. When computing membership using the prediction equation, the equation was most useful in predicting Groups I (100% accuracy) and III (92.1% accuracy).
Question 4: To what extent was there a significant relationship between teacher preferences for the referring case and staff ratings of the referring teacher's typical willingness (based on past experience) to intervene in cases with children exhibiting behavior problems?

A simple correlation analysis relating teacher outcome expectancy scores for each method of service delivery with staff ratings on the Intervention Attempts by Teachers (IAT) measure was conducted. Specifically, correlations between COEM and ROEM scores and IAT scores were computed. The relationship between these variables was found to be nonsignificant.

A t-test was used to test whether IAT scores of teachers who indicated a preference for referral versus those who indicated a preference for consultation on the FCPQ were significantly different. Results of this analysis also resulted in nonsignificant findings, suggesting that staff did not view teachers who preferred consultation versus referral any differently in their ability and willingness to intervene in the classroom.
DISCUSSION

Previously designed studies investigating variables important in teacher preferences for and actual use of service delivery options have resulted in a literature where varying methodologies have been used to study variables in isolation. Thus, the purpose of this project was to investigate possible influential variables in a more comprehensive format, in order to examine the conditions under which teachers select one type of service delivery over another and to identify which variables are important in predicting actual case outcomes. This was accomplished through the investigation of specified research questions.

Question 1: Which variables accounted for the most variance in teacher outcome expectancy of referral for medical/psychological evaluation versus consultation/intervention?

Regression analyses were conducted which considered variables as predictors of teacher expectancies about outcome when either referral or consultation was used with a case. These analyses revealed that of all variables considered, only teacher attributions and willingness to help were significantly related to ROEM and COEM scores. With respect to teacher expectancies about outcomes of the referral process for medical/psychological evaluation, teacher perception of problem severity and teacher control were found to be important. These findings suggest that when a teacher is evaluating whether the referral process is likely to result in positive outcomes for a particular
case, the most important variables are beliefs about his/her ability to influence the child's behavior and his/her perceptions about the severity of the problem.

In considering teacher outcome expectancy regarding the consultation service, only teacher control was found to be significant in regression analyses. This again suggests that of all measured variables, teacher perceptions of their ability to control and influence the child's behavior are most important. These findings, along with previous findings of Gutkin and Ajchenbaum (1984) and Gutkin and Hickman (1987), suggest that teacher perceptions of the amount of control he/she has in a given situation are critical when he/she is evaluating the likely outcome of using consultation for a particular case. Additionally, this in turn, may ultimately affect the actual use of consultation by the teacher for that case.

**Hypothesis 1**

It was hypothesized that each of the primary variables entered into the multiple regression analysis would account for a significant amount of the variance in teacher outcome expectancy scores for each of the methods of service delivery. This hypothesis received only marginal support in that, of all variables entered, only two, teacher attributions: Teacher Control (TAS-I), and willingness to help: Behavior Problem Severity (WTH-II) were found to be significant.
Although these findings will require replication, they do suggest that when considering teacher beliefs about expected outcomes resulting from either form of service delivery, teacher attributions about their control over the problem and their perception of the severity of the problem are more important than other measured variables.

Question 2: Which variables best discriminated teachers who selected referral for evaluation or consultation as the most appropriate service delivery option for a particular case?

Results of discriminant function analyses indicated that the most significant variables in predicting teacher preference for services in a particular case were the child’s control over his/her own behavior, behavior problem severity, and off-task behavior in the classroom.

The finding of a relationship between teacher attributions about a child’s control over his/her own behavior and teacher preference for service delivery supports Cooper and Lowe’s (1977) proposal that teacher behavior varies depending on the extent of control the teacher feels the student has over his/her own behavior. A teacher may be more or less likely to choose consultation versus referral services depending on whether the teacher believes the child could modify his/her behavior in the classroom.

The finding that behavior problem severity is predictive of preference for service delivery is similar to the findings of Gutkin, et. al. (1980). These authors
found that with less severe problem behaviors, teachers preferred consultation over referral. Results of the present study in conjunction with those of Gutkin, et. al. (1980) suggest that a relationship exists between teacher preference for service delivery and problem severity.

Student off-task behavior was also found to be a significant predictor of preference for services. This is consistent with the findings of Low & Clement (1982) who reported that child on-task behavior was by far the largest contributor in their prediction model for determining special education referral.

**Hypothesis 1**

It was hypothesized that predictor variables in the discriminant function analysis could reliably predict group membership (i.e., preference for referral or consultation). The combination of variables most useful in predicting group membership was not speculated upon.

The results of the discriminant function analysis provided support for this hypothesis. The discriminant function was able to predict group membership of the sample with approximately 72% accuracy. The most useful combination of variables in predicting group membership was found to be teacher attributions (Child Control [TAS-III]), willingness to help (Problem Severity [WTH-II]) and classroom behavior (mean time spent off-task in classroom observations).
In building on the understanding of the conditions under which a teacher chooses the referral process or the consultation process as the best option in a particular case, these results add to the information gathered in an earlier phase of the study. The discriminant function analyses employed here suggest that when actually selecting one method of service delivery over another for a particular case, certain attributional variables again appear to be critical; however, actual classroom behavior was found to be important as well.

Question 3: Which variables collected early in the referral process reliably discriminated final case outcomes?

Discriminant function analyses investigating this question revealed that organizational perceptions of availability and effectiveness of consultation services, teachers' willingness to help, and overall school climate are significant predictors of actual case outcome.

The support for organizational variables predicting referral versus consultation services extends the previous findings of Christenson, et.al. (1982) where only referral services were investigated. These authors found that availability of services and "hassle" associated with referral served as barriers to referral for special services. Likewise, Wilton et.al. (1987) demonstrated that access to psychologists accounted for a significant amount of the variance in predicting teacher referrals. In the
present study, this same variable, accessibility and "hassle" associated with each service was found to be predictive of actual case outcome for both referral and consultation.

The finding that school climate may be important in consultation and referral use is contradictory to that of Bossard & Gutkin (1983). These authors investigated the relationship of various factors including school climate and consultation use. Bossard & Gutkin (1983) did not find that school climate accounted for a significant amount of the variance in consultation use. Further investigation of school climate factors will be needed in order to determine its importance in use of services.

**Hypothesis 1**

It was hypothesized that final outcome of referred cases could be reliably predicted by variables in the discriminant function analysis. No hypothesis was generated about which combination of variables would be most useful in prediction.

The results suggest support for this hypothesis in that one significant function was obtained accounting for 56% of the total variance. Variables found to be significant predictors in this analysis were: quality of consultation services, teacher willingness to help, and school climate.
In adding to the global understanding of which variables considered early in the decision-making process are most important in predicting whether teachers use referral only, consultation only, or some combination in a particular case, these findings suggest that organizational factors and teachers' willingness to make modifications and provide extra support to the student are most critical.

General Discussion

The results of this study, taken together, indicate that the variables studied here are differentially important when considering outcome expectancies, teacher preferences for services, and actual case outcomes. Hence, when considering only teacher beliefs about expected outcomes of each service delivery option, teacher attributions about his/her control over the problem behavior and the severity of the problem were found to be most critical. However, when investigating factors that influence teacher choices of the optimal service in a particular case, teacher attributions of child control, behavior problem severity, and classroom behavior were found to be most important. Finally, in identifying the variables which predicted what service or combination of services was actually used with a particular case, organizational variables were found to be most important.

These findings suggest that variables other than those unique to a particular case are important when considering
what actually happens when a student is identified as having behavior problems and a teacher decides to request assistance. In this study, an organizational variable (i.e., the accessibility and efficiency of each provided service on that particular school’s campus) was most critical in what actually happened with a case, rather than variables measuring unique aspects of the child’s behavior and teacher beliefs about that behavior. This finding is consistent with the results of Christenson et. al (1982) and Wilton et. al. (1987) which suggested the importance of availability and accessibility of services in predicting use of that service. These earlier studies, while providing preliminary evidence of the importance of accessibility and availability of services in predicting use of referral services, were both somewhat limited because of methodological considerations. The present study extended these preliminary findings by investigating many different variables in addition to organizational factors when attempting to predict actual use of both referral and consultation service delivery options.

Further support for the finding that variables are differentially important when considering teacher outcome expectancy, preference for services, and actual use of services is found when considering descriptive data obtained in this study. While the actual outcome data of the study indicated that 17% of the cases resulted in
referral only, in 43% of the cases, teachers indicated that referral was the optimum form of service delivery for the case. Even when considering those cases where both consultation and referral were ultimately used, the number of cases, including referral as a utilized service, totaled only 37% of cases. These findings again suggest that just because a teacher believes that referral is the most appropriate service in a case, other variables such as accessibility and effectiveness of consultation services and openness of school climate also influence the ultimate outcome.

In considering the findings of the present study in the context of the existing literature, these results provide preliminary evidence for ranking the importance of certain variables over others across the dependent variables (i.e., outcome expectancy, preference for services, or actual use of services). While previous studies, i.e., Christenson et al. (1982), Gutkin & Ajchenbaum (1984), Cooper & Lowe (1977), Gutkin et al. (1980), etc. provided empirical and theoretical support for the importance of many of the variables investigated here, these variables were studied in isolation or with variables not considered in the present study. Thus, the present results extend the existing literature by considering many previously supported variables in their relationship to preferences for and actual use of
consultation versus referral services and allowing a preliminary ranking of the relative importance of each of these variables when considered together.

When comparing the results of the present study to those of Hughes, Barker, Kemenoff, & Hart (1993), inconsistencies are apparent. Hughes, et. al. found that perceptions of control and attributions did not predict teachers' decisions to seek consultation or to refer the child. Methodological differences in the two studies may account for the apparent inconsistencies. First, actual cases involving students currently in a teacher's classroom were used in the present study, while hypothetical vignettes were utilized in Hughes, et. al. Teachers may respond differently to measures when they are asked to imagine a problem versus when they are actually attempting to respond to a problem with a particular student. Second, teacher attributions were assessed differently in the two studies. In Hughes, et. al., attributions were measured by having teachers rate the importance of six factors in causing the child's problem. In the present study, attributions were measured using a dimensional approach, without regard for specific causes. Given the significantly differing methodologies, conclusions about how the present findings relate to those of Hughes et. al. cannot be drawn. Further studies considering attribution variables along with organizational variables and factors
unique to specific cases such as classroom behavior, will need to be conducted in order to increase our understanding of how these variables relate to preference for and use of services.

Study Limitations and Future Directions

Inherent in the present study were several limitations. First, because two specific service delivery methods (i.e., referral and consultation) were being considered as primary variables in this study, the data had to be collected from a school district that followed a consultation based model of service delivery. Certain aspects of the services offered in the particular district where the data were collected, such as psychologists employed to serve as "behavioral consultants" rather than psychometricians, may not be found in other school districts. Thus, the generality of the results of this study may be limited to those districts where both types of services are offered on a regular basis. Further studies investigating the variables studied here and their relationship to preference for and actual use of service delivery methods will be needed prior to making firm conclusions about the generalizability of these findings to school populations.

Second, the selection or creation of specific measures for the various constructs may have resulted in different findings than those obtained if other measures had been selected as the representative measure for the construct.
Because of the recency of theoretical support for some of the constructs, adequate measures were not necessarily available, thus they were created for the purposes of this study.

In illustrating how the measurement tools may have affected the results of the study, consider the chosen measure of teacher perception of problem severity, the Achenbach Teacher Report Form. This measure was not found to be significantly related to any of the dependent variables; however, Behavior Problem Severity (WTH-II) was found to be important in teacher outcome expectancies of service methods as well as in predicting teacher preferences for services. This may suggest that WTH-II was a more specific and/or representative measure of behavior problem severity than was the TRF. In conducting future studies, it will be important to consider the specificity and representativeness of each measuring tool when studying the importance of the constructs in predicting case outcomes.

Third, because actual cases were used, the number of cases in each group could not be controlled. This resulted in unequal group sizes, particularly in the set of final outcome analyses. While estimates of prior probabilities of group membership were considered in interpreting results, a more ideal situation would have been to have a
larger sample with equal numbers in each of the three groups.

Finally, the statistical analyses employed in this study, i.e., stepwise multiple regression and discriminant function analysis, are considered somewhat controversial due to the method the procedures use for ordering entry of variables (Tabachnick & Fidell, 1983). These procedures, however, are useful for exploratory purposes in model-building and eliminating variables that are clearly unsupported to "tighten up future research" (Tabachnick & Fidell, 1983, p. 106). Thus, in future studies, more conservative statistical procedures should be utilized when considering variables found to be important here in their relationship to preferences for and actual use of services.

Once critical variables are defined and empirically supported using more conservative methods, it may be possible to design studies to investigate ways of intervening on these variables to influence teachers to use one form of service delivery over another. For instance, if funding issues as well as state mandates continue to influence districts to implement prereferral interventions, discovering methods of increasing teacher acceptance for and use of consultation services may be important for researchers. Further studies will need to address these questions.
In summary, the present study has perhaps raised more questions that it has answered. Although it does provide a preliminary rationale for considering certain variables over others in future studies, the extent of the importance of these variables cannot be determined from the present study.
REFERENCES


APPENDIX A

Consent Form For Teachers

Purpose. Thank you for agreeing to participate in this important project designed to investigate factors that influence teachers to select one type of service delivery over another (e.g., consultation or referral for special education). By participating in this study, you will be helping to increase our understanding of variables that are important when a teacher makes a decision about the best way to help a child who is exhibiting behavior problems in the classroom.

What participants do. If you consent to participation this project, you will be asked to complete a few brief paper and pencil questionnaires. These questionnaires are designed to obtain basic demographic information about you as well as information about the child who is causing significant problems in your classroom. You will also be asked to allow a classroom observation so that important factors that may be contributing to the child's problems may be considered.

Participants' rights. Your agreement to participate in this project is totally voluntary. You have the right to withdraw from the study at any time. You will be assigned a number and your name (or the child’s name) will not appear anywhere in the study. Your answers are completely confidential and will not be shown to any persons connected with your school or school board. You have the right to ask questions about the procedure and your questions will be answered.

I HAVE READ AND UNDERSTAND THIS CONSENT AND I AGREE TO PARTICIPATE IN THIS RESEARCH.

__________________________________________        ________________
Signature                                      Date
APPENDIX B

Teacher Background Information Form

Directions. Please provide the following information about yourself. Your responses will be coded and used to summarize participant characteristics. This information, as well as other data you provide during the research project, will be treated as confidential.

Case Number: _____________

Sex: Male _____ Female _____

Highest degree earned: _______________________________

Type of teacher certification: _______________________________

Number of years employed as a teacher: _____________________

Grade levels taught: _______________________________________

Did you refer any children with behavior problems for psychological/medical evaluation last year? Yes No

If yes, how satisfied were you with the outcomes resulting from the referral process in terms of improvements in child(ren)’s behavior?

<table>
<thead>
<tr>
<th>Very Satisfied</th>
<th>Somewhat Satisfied</th>
<th>Not Satisfied At All</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Have you requested consultation for any children with behavior problems this year? Yes No

How satisfied were you with the outcomes resulting from the consultation process in terms of improvements in child behavior?

<table>
<thead>
<tr>
<th>Very Satisfied</th>
<th>Somewhat Satisfied</th>
<th>Not Satisfied At All</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
APPENDIX C

Preference for Service Delivery

The following are definitions of two types of services that may be chosen for a child who is exhibiting behavior problems in the classroom. Please read each definition carefully and place an X in the blank next to the service that you feel is most appropriate for the referred case.

_____ Consultation

Consultation is a collaborative team approach between the behavioral consultant or counselor and teacher where intervention strategies are developed for the teacher to use in the classroom.

_____ Referral for Psychological/Pediatric Evaluation

Referral is a request for a psychologist or pediatrician to test a child who is exhibiting significant behavior problems and to recommend appropriate treatment which may or may not involve the teacher. This referral is usually made through special education services on your campus.
APPENDIX D

Outcome Expectancy Measure (OEM)

Keeping in mind the preceding definitions, please rate (on a scale of 0 to 4) how successful you feel each service would result in positive outcomes in the areas listed. Please circle one number for each item under consultation and referral to indicate whether the item is likely or not likely to occur if this service is used. (For example, for item #1, if you feel that it is very likely that consultation will result in improved behavior of the student, circle 4. If you feel that referral will not result in improved behavior of the student, circle 0, etc.). Please circle one number under each service for all ten items.

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>negative outcome expected</td>
<td>neutral outcome expected</td>
<td>positive outcome expected</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Consultation</th>
<th>Referral</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Improved behavior of the student</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>2. Better school performance for the student</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>3. Better quality education for the child</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>4. Better school enjoyment for the student</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>5. Improve the student's problem behaviors</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>6. Reduce the child's disruption of other students in the class</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>7. Achieve a happier and better adjusted child</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>8. Provide more time available to work with other children</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>9. Alleviate the need for future special help or services</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>10. Allow the student to get along better with the teacher</td>
<td>0 1 2 3 4</td>
</tr>
</tbody>
</table>
APPENDIX E

Teacher Attribution Scale (TAS)
(George, 1993)

Directions: The purpose of this questionnaire is to obtain information about your perceptions concerning the child’s behavior problems. Please circle the number which best describes your agreement or disagreement with each of the following statements.

<table>
<thead>
<tr>
<th></th>
<th>never true</th>
<th>infrequently</th>
<th>sometimes</th>
<th>often</th>
<th>always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>true</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>true</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Even with assistance from a consultant, this child’s problem behavior cannot be controlled.
2. No matter what changes I make, this child will continue to exhibit these problem behaviors.
3. I can influence this child’s behavior in the classroom.
4. This child can control his behavior.
5. This child’s parents cause his problem behavior.
6. This child is responsible for his misbehavior.
7. Others cause this child’s misbehavior.
8. This child’s problem behavior is caused by something he/she can control.
9. This child’s problems are too severe/complicated for me to handle.
10. Other people are responsible for this child’s misbehavior.
11. Time will solve this behavior problem.
12. Factors in the environment cause this child’s behavior problem.
13. I could manage this child’s behavior if someone could tell me what might work.
14. This child’s problem behaviors will go away with time.
15. This child can stop this misbehavior if he/she wants to.
16. The cause of this child’s misbehavior is external to the child.
17. I can manage this child’s behavior problem.
18. The cause of this child’s misbehavior will change in the future.
19. This child misbehaves intentionally.
20. This child’s misbehavior is influenced by others.
APPENDIX F

Willingness to Help Scale (WTH)
(Witt, 1994)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>strongly agree</td>
<td></td>
<td></td>
<td></td>
<td>strongly disagree</td>
</tr>
</tbody>
</table>

1. Most teachers would be willing to spend considerable time helping the child improve his performance.

2. Most teachers would be willing to "go out of their way" in order to improve this child's behavior.

3. Most teachers would probably refer the child for outside help rather than attempt to intervene themselves.

4. Most teachers would not be able to improve this type of behavior.

5. This child's inappropriate behavior will continue throughout his academic career.

6. Most teachers would be willing to seek resources (i.e., help from others) to remediate this problem.

7. Most teachers would be willing to alter curriculum materials for this child.

8. Most teachers would be willing to take time away from other children to help this child.

9. This child will require similar help in the future.

10. The child's behavior will improve as he progresses through school.

11. Given sufficient resources, most teachers would be willing to help this child complete his work.
Organizational Perception of Access to Services (OPAS)

Please read each definition provided and answer the following questions in relation to the forms of services provided on your school campus. Your responses are confidential and will not be shared with service providers in your school or district.

**Consultation** is a collaborative team approach between the behavioral consultant or counselor and the teacher where intervention strategies are developed for the teacher to use in the classroom.

1. How effective is consultation for remediating behavior problems in your school (i.e., does it usually solve the child’s problem)?

<table>
<thead>
<tr>
<th>Very Ineffective</th>
<th>Ineffective</th>
<th>Effective</th>
<th>Very Effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

2. How difficult is it to gain access to consultation services from a behavioral consultant or counselor on your campus?

<table>
<thead>
<tr>
<th>Easy Access</th>
<th>Somewhat Easy Access</th>
<th>Somewhat Difficult Access</th>
<th>Difficult Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

**Referral for Psychological/Pediatric Evaluation** is a request for a psychologist or pediatrician to test a child who is exhibiting significant behavior problems and to recommend appropriate treatment which may or may not involve the teacher. It usually involves referral to special education to access services.

1. How effective is referring a child for either medical or special education evaluation in remediating behavior problems in your school (i.e., does it usually solve the child’s problem)?

<table>
<thead>
<tr>
<th>Very Ineffective</th>
<th>Ineffective</th>
<th>Effective</th>
<th>Very Effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

2. How difficult is it to gain access to evaluation services on your campus?

<table>
<thead>
<tr>
<th>Easy Access</th>
<th>Somewhat Easy Access</th>
<th>Somewhat Difficult Access</th>
<th>Difficult Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
APPENDIX H

Data Collection Form

1. Total number of referrals for special education at this school in the 1994-95 school year ____________

2. Total number of students attending this campus for the 1994-95 school year ________________

3. Total number of referrals by ____________________ for the 1994-95 school year ________________
APPENDIX I

Intervention Attempts by Teachers

Case Number: ________________

School: ________________

Rater: ________________

1. To what extent is this teacher likely to consistently follow through on recommendations offered by the core team/behavioral consultant?

<table>
<thead>
<tr>
<th>Very Unlikely</th>
<th>Unlikely</th>
<th>Somewhat Likely</th>
<th>Likely</th>
<th>Very Likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

2. To what extent is this teacher usually receptive to recommendations offered by the core team/behavioral consultant?

<table>
<thead>
<tr>
<th>Very Receptive</th>
<th>Somewhat Receptive</th>
<th>Unreceptive</th>
<th>Very Unreceptive</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

3. How effective is this teacher in implementing recommendations in the classroom?

<table>
<thead>
<tr>
<th>Very Effective</th>
<th>Somewhat Effective</th>
<th>Ineffective</th>
<th>Very Ineffective</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

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APPENDIX J

Final Case Outcome Reporting Form

Please check the description that best indicates the outcome of this particular case.

____ referral to special education only, no consultation with behavioral consultant requested

____ consultation with behavioral consultant/counselor conducted, referral to special education made

____ consultation with behavioral consultant/counselor conducted, no further referral
VITA

Angela Michelle Waguespack was born on October 8, 1967 in Vacherie, Louisiana, the second child of five. She completed her first year of undergraduate work at Nicholls State University in Thibodaux, Louisiana before transferring to Louisiana State University in Baton Rouge. It was there that she earned a Bachelor's Degree and Master's Degree in psychology. In May, 1996, she completed her doctorate in School Psychology at LSU as well. It was also at LSU that she met Mark Todd, a doctoral candidate in Clinical Neuropsychology. Angela and Mark married in August of 1993. She completed a school psychology internship at Humble Independent School District in Humble, Texas before moving to South Florida. She currently lives with her husband in South Florida and works as a school psychologist for the School Board of Broward County.
Candidate: Angela M. Waguespack

Major Field: Psychology

Title of Dissertation: Teacher Preferences for and Actual Use of Service Delivery Options: A Study of Possible Influential Variables

Approved:

[Signatures]

Major Professor and Chairman

Dean of the Graduate School

EXAMINING COMMITTEE:

[Signatures]

Date of Examination:

03/07/96