Impact of Service Delivery Model, Presenting Problem, and Consultee Characteristics on Teachers’ Preference for Academic and Behavioral Remediation

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This research is a product of the graduate program in School Psychology at Eastern Illinois University. Find out more about the program.

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Impact of Service Delivery Model, Presenting Problem, and Consultee Characteristics on Teachers; Preference for Academic and Behavioral Remediation

BY

Kathy Wilson

THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

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

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Abstract

This study examined teachers' preferences for academic and behavioral remediation. Specifically, the impact of service delivery model (traditional or flexible), type of presenting problem (academic or behavioral), and selected consultee characteristics (age, years of experience, grade level taught, years at current school, and level of teacher education) on teacher preferences was investigated. Individuals completed a demographic information sheet and an analog study. The survey consisted of two hypothetical scenarios of two different students found within the classroom. The first scenario described a student who only exhibited behavioral/emotional issues. The second scenario described a student who presented with only academic issues. After reading each scenario, teachers selected a first preference of what they would like to do next to help the student (refer for testing, consult with a school psychologist, continue with current intervention/instruction, and other). Frequency data were recorded for all variables.

Independent t-tests were conducted to determine if there was a significant difference in the number of referrals reported over the past twelve months and number of times consulting with a psychologist in the past twelve months between the participants in the flexible and traditional service delivery models. Chi Square analyses were conducted on teachers' preference to help students with academic and behavior problems between flexible and traditional service delivery models. In addition, a discriminant function analysis was conducted on all demographic variables, to determine which variable(s) if any predicted remediation preferences.
Results indicated that teachers in the flexible service delivery model consulted with the school psychologist significantly more often than teachers in the traditional model. There was no significant difference in the numbers of referrals to the school psychologist for testing. A significant difference was found for teachers' preference for remediation of students with academic problems between the two service delivery models. This difference in teachers' preferences was apparent in the significantly larger number of teachers in the flexible service delivery system versus the number of teachers in the traditional service delivery model that chose to consult with someone other than a school psychologist for assistance. There was no significant difference in teachers' preferences for remediation of behavior problems among students across both service delivery models. Similarly, none of the demographic variables emerged as predictors of teachers' preference for remediation of academic problems, however the correlation between the two was not significant. None of the demographic variables were predictors of teachers' preference for remediation of behavior problems. Discussion focuses on these results as they relate to past research, implications for the evolving role and function of school psychologists, and directions for future practice and research.
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*Traditional Service Delivery*

Service delivery may be defined as the way in which special education services are provided to individuals with special needs. The National Association of School Psychologists (NASP) emphasizes incorporating the use of a problem-solving model for school psychologists to implement into service delivery (Deno, 2002). Problem solving is defined as a logical, methodical process whose approach to intervention focuses not on failure or deviance, but aims to eliminate the difference between the level a child is currently functioning and the level the child should be functioning (Deno, 2002). Best practice is to incorporate problem solving into school psychology services. Components of this problem-solving model include problem definition, assessment/measurement, selecting interventions, monitoring progress, revising interventions as necessary, and evaluating outcomes.

Although a problem-solving model is emphasized, traditional psychological service delivery is based on a medical model whereby the primary focus is on assessing, diagnosing, and treating internal pathologies (Sheridan & Gutkin, 2000). With regard to traditional school psychology, the focus has been on psychoeducational assessment and special education classification. In fact, the nature of traditional school psychology practices results in an inordinate amount of time spent in special education classification and placement (Reschly & Ysseldyke, 1994; Smith, 1984; Smith & Mealy, 1988). Specifically, 85% to 90% of the referral population to school psychologists consists of students with mild disabilities (i.e., mental retardation and learning disabilities). It is
apparent that the medical model within school psychology results in a good deal of time spent in assessment and diagnosis of mild disabilities, while neglecting treatment and consultation. The impact of referral rates on assessment demands is related to lack of consultant pre-referral work. Specifically, when pre-referral intervention is initiated in a building, it reduces the amount of referrals generated for testing (Myles, Simpson, & Ormsbee, 1996).

When comparing the generic problem-solving model with the traditional medical model of service delivery, some mismatch exists. With traditional service delivery, intervention is implemented only after the referral problem becomes serious enough to warrant an assessment by the school psychologist. This medical model then defines the problem in terms of classification or diagnosis and utilizes normative measures to assign these classifications. Placement decisions are then made based on such normative measures, and follow up only occurs annually at Individual Education Plan (IEP) reviews or tri-annually at re-evaluation time (Sheridan & Gutkin, 2000).

Because the traditional medical model emphasizes internal pathology (and is often an assumption of school psychology), it poses numerous problems for school based psychological services. First, practices according to this model do not fully take into consideration the impact external contexts (environmental, social, family, and community) have on presenting problems (Sheridan & Gutkin, 2000). Second, the methods of assessment (norm-referenced standardized assessments) have inherent limitations that have resulted in controversy over the use of these assessment tools in the special education decision-making process (Madelaine & Wheldall, 1999). A third problem the medical model poses to school psychology is related to nonfunctional and
stigmatizing labels or classifications. A fourth concern related to diagnosis and eligibility is the lack of differential prescribed treatment across diagnoses (Reschly & Ysseldyke, 1994). The Individuals with Disabilities Education Act or IDEA places the burden on the eligibility determination team for decision making in classification to allow clinical judgment (which is difficult to measure) to compensate for these difficulties associated with the traditional model, but does not eliminate these problems.

It is apparent that traditional medical model practice in school psychology has many limitations and may not provide the most efficient and effective service to children. Although the traditional test and place strategy of the medical model has intuitive appeal given the federally mandated classification scheme of IDEA, it may not mandate the methods of assessing those specific classifications. That is, IDEA does not specify that norm-referenced standardized assessment instruments be used to make such classification decisions. Moreover, IDEA also mandates that prevention and early intervention be considered. Although many school districts in the United States have prevention and intervention services available, the focus of these services are largely based on the traditional medical model which is incongruent with the problem solving model of service delivery because students must meet a full diagnosis prior to receiving special education services. Pre-referral intervention is critical, but is often seen as a something that must be done in order to move through the referral process and is poorly implemented (Wilson, Gutkin, Hagen, & Oats, 1997). When utilized properly, much can be done with pre-referral intervention to assist students without diagnosis.
Alternative Service Delivery

In recent years, concerns regarding the traditional practice of school psychology have prompted researchers and practitioners to consider alternatives (Reschly & Ysseldyke, 1994). Flexible service delivery is a specific alternative service delivery model. Flexible service delivery is defined as flexibly utilizing all existing services and staff as intervention resources within a cross-disciplinary service model, targeting students at-risk for academic failure (for learning or behavior difficulties) or who are performing below expected levels, (Swerdlik, 2001). The purpose of this service delivery model is to increase school systems’ ability to meet diverse student needs in the regular education setting by sharing intervention resources to improve learning for students not eligible for special education as well as improving service to special education students. Flexible service delivery uses team building, problem solving, collaboration, research-based interventions, and decision-making tools such as curriculum based assessment/measurement (CBM/A) and functional behavior assessment (FBA) to achieve this goal.

Currently Illinois is one of twelve states participating in the National Flexible Service Delivery Consortium (Swerdlik, 2001). Illinois began integrating flexible service delivery into practice approximately seven years ago. Seventeen districts within the state are at various stages of implementing this system. Evaluation on flexible service delivery over the past four years indicate data to support that case study evaluations decreased by approximately 50%, and the number of special education placements decreased by approximately 75% (Swerdlik, 2001).
The structure of an alternative service delivery model is based upon a problem-solving framework (Reschly & Ysseldyke, 2002). Comparing practices in an alternative service delivery model with the generic problem-solving model, there is considerable overlap. Alternative service delivery implements the intervention phase when teachers request assistance, before the problem becomes serious, and only refers individuals for testing when early intervention is ineffective. Some reasons why these interventions may be ineffective include poor treatment integrity or student factors such as motivation.

Because academic and behavioral problems are usually defined as skill or motivational deficits, functional behavior assessment (FBA) for behavior problems and curriculum based assessment/ measurement (CBA/M) for academic problems are conducted to allow frequent progress monitoring. Thus, placement decisions are made based on level of individual skills and in response to treatment, rather than on internal hypothetical constructs.

An alternative service delivery model is one that focuses on prevention, early intervention, and remediation through systematic data collection and support for teachers (Reschly & Ysseldyke, 1994; Northern Suburban Special Education District, 2001). Alternative service delivery conceptualizes academic and behavior problems as being a result of external factors, residing within the environment, which are often the more plausible factors. The alternative service delivery model emphasizes CBA/M, FBA, pre-referral intervention teams, and consultation.

**CBM.** Curriculum based measurement (CBM) is a set of methods for indexing competence and growth on basic academic skills by providing test items that are a sampling of the local curriculum which allows for frequent administration and scoring
assessments to track progress (Elliott & Fuchs, 1997). CBM was developed for two purposes, to monitor academic progress and to link instructional planning with assessment information to enhance student outcomes (Fuchs & Fuchs, 1997). Uses of CBM include screening, avoiding unnecessary referrals and evaluations, developing interventions, evaluating progress, and evaluating programs (Paulsen, 1997). Eligibility decisions utilizing CBM is a two-step process (Fuchs & Fuchs, 1997). The first step is problem identification where an academic problem is investigated to determine if further assessment is needed. The second step is problem certification to determine if the severity of the problem warrants the use of special education. The focus of decision making for special education placement is the discrepancy between level of the curriculum in the student’s classroom and the highest level of the curriculum the student demonstrates successful performance, which has its own set of drawbacks. However, each school district sets its own criterion for how large the discrepancy must be for special education services to become necessary. While both models have the option of developing local norms, the pre-referral model has distinct advantages in its use of CBM and FBA.

*FBA.* Functional behavior assessment (FBA) is a process of collecting information to ascertain the functional relations between environmental variables and behavior (Shriver, Anderson, & Proctor, 2001). FBA assesses the interaction of the individual and the environment to develop interventions that lead to prediction and control of behavior. Of particular interest are the antecedents and consequences of behavior. By understanding the antecedents and consequences, a school psychologist can better develop behavior interventions. Moreover, because behavior is seen as a function
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of environmental variables, treatment focuses on changing the environment not changing hypothetical constructs within the child.

*Pre-referral teams.* Pre-referral teams address teacher concerns prior to sending the student on to a case study evaluation. Makeup of these pre-referral teams varies, but involves teaming of regular education staff with special education staff. Often these teams utilize functional behavior analysis (FBA) and curriculum based measurement (CBM) to remediate student difficulties. When examining reasons for referral for case study evaluation, FBA and CBM are important because academic reasons accounted for 50% of the referrals based on records, while the rate of academic reasons varied from 35% to 80% based on interviews and surveys (Eidle, Truscott, & Meyers, 1998). Social emotional reasons (defined as attitude problems, deteriorating behavior, disruptive behavior, and aggressive behavior) accounted for 40% of the referrals based on record reviews, while the rate of behavioral concerns varied from 30% to 90% based on interviews and surveys (Eidle, Truscott, & Meyers, 1998). Because FBA and CBM are emphasized, referrals for psychoeducational assessment are minimized.

Moreover, the alternative service delivery model purports to reduce the number of referrals for psycho-educational assessment due to its emphasis on pre-referral intervention teams. Pre-referral intervention teams require teachers to obtain assistance with children who are difficult to teach from other educators, administrators, and school psychologists (Eidle, Truscott, & Meyers, 1998). The majority of states require teachers to participate in pre-referral intervention teams to develop plans to deal with students in the general education setting, and to prevent the need for special education placement. While pre-referral teams are defined as group consultation, a school psychologist may or
may not be a part of that team. Often a teacher may find it helpful to consult individually with a school psychologist. While the alternative service delivery model mandates that teachers go through the pre-referral process, those educators in the traditional service delivery model are not required to seek out assistance prior to referring a student for case study evaluation.

Although overall pre-referral teams reduce the referral rate for psychoeducational assessment by 40 to 60%, self-efficacy of pre-referral teams’ success varies (Myles, Simpson, & Ormsbee, 1996). Specifically, pre-referral teams consisting of regular and special education teachers rate themselves as more effective in working with students who are experiencing learning problems than those exhibiting behavior problems (Myles, Simpson, & Ormsbee, 1996). One possible theory to explain these results involves team members’ lack of skill or experience in working with this type of student. However, research on interventions, suggests that teams often did not follow problem solving strategies, and that interventions were oriented toward remediation rather than prevention (Eidle, Truscott, & Meyers, 1998).

Individual and group consultation is at the core of pre-referral intervention process. Participation in these pre-referral teams reduces the number of individuals who are referred for special education and placement. Therefore, consultation may provide a vehicle to achieve prevention in educational settings (Gutkin, 1996).

Consultation

Both group and individual consultation are emphasized in the alternative service delivery model. Consultation is the interaction of two professionals within a nonhierarchival relationship where the consultant helps the consultee deal with a work
related problem (Brown, Pryzwansky, and Schulte, 2001). School based consultation is defined as a method of providing preventive and remedial oriented psychological and educational services in which consultants and consultees form cooperative (collaborative) partnerships (in a systems context) and engage in a reciprocal, systematic problem-solving process to empower consultee systems, thereby enhancing students’ well being (Zins and Erchul, 1994; Zins and Ponti, 1994).

Consultation has two primary goals (Zins & Ponti, 1996). First, consultation is intent on clarifying and resolving presenting problems of consultees (i.e., teachers). Second, consultation aims to enhance the skills and knowledge of consultees so that they evolve into more skillful problem solvers in the future when faced with similar problems.

Consultation in the school setting serves the purpose of providing support for regular education teachers of students with special needs to be placed in a regular education classroom (Gutkin, 1996). Although many school psychologists have some formal training in consultation (Shriver & Watson, 1999), school psychologists only spend approximately 20% of their time engaged in consultation and the majority (40-55%) of the time engaged in assessment and report writing activities (Anthun, 1999; Reschly & Wilson, 1992; NASP, 1989; Smith, 1984; Smith & Mealy, 1988). Surveys suggest that teachers, administrators and school psychologists desire activities that require less assessment and more intervention, consultation, and preventions services (Anthun, 1999).

Research on School Based Consultation.

Gutkin, Singer, and Brown (1980) examined whether teacher preference for consultation or referral was affected by the type or severity of presenting problem (acting
out, withdrawal, and academic difficulties). Results suggested that teachers preferred consultation to referral and that teacher preferences were constant across type of student problem. However, when teachers perceived the problem to be less severe, teachers were more likely to prefer consultation. Likewise when problems were seen as more intense, referral was more likely to be the avenue of choice.

Gutkin (1980) examined teacher perceptions of consultation services provided by school psychologists. In terms of the effectiveness of consultation, 69% of teachers indicated that it is more effective, 16% rated it as equally effective, and 4% perceived it to be less effective than traditional assessment and traditional service delivery. Teachers also viewed working with a school psychologist as improving upon their existing professional skills. In addition, teachers felt that it was highly important to be involved with remediation for students with difficulties despite time constraints.

While consultation is considered to be effective by teachers, teachers frequently do not take advantage of this service provided by school psychologists. One theory is that resistance to consultation based on consultant, consultee, and organizational variables are partly responsible (Gutkin & Heckman, 1990). Consultee characteristics are demonstrated to be more closely related to resistance to consultation than either consultant or organizational variables. Specifically, Brown, Pryzwansky, and Schulte (2001) noted that consultee experience, perception of consultants' styles, ethnic background, problem solving skills, personality, and emotional state of the consultee may influence the level of resistance toward consultation. Of these consultee variables, the consultees' problem solving skills had the highest correlation to resistance to
consultation, and the years of experience for each consultee had the lowest correlation to resistance to consultation.

While consultation may be effective, some consultants and consultees experience difficulty in identifying problems, generating solutions, maintaining rapport, and collecting data, all of which undermine the effectiveness of the process (Fuchs & Fuchs, 1996). In addition, it is estimated that school psychologists spend only 10 – 20% of their time engaged in consultation (Fuchs & Fuchs, 1996). With the high level of student academic failure, misbehavior, and increasing numbers of individuals in special education, it is unclear as to why consultation takes place so infrequently, while referral for special education is widespread practice. Recently, consultation has become an increased area of interest, and researchers are increasingly investigating the variables that may contribute to the low incidence of school-based consultation.

For example, when examining teachers’ years of experience, there are contradictory results regarding the impact it has on the consultation process. Weissneburger, Fine, and Poggio (1982) found that the years of teacher experience were negatively correlated with effectiveness of the outcome of consultation. Logical reasons for this may be that with more experience teachers have, the stronger their intervention skills are, and the less likely they will be able to benefit from consultation. Gutkin and Bossard (1984) examined consultant, consultee, and organizational variables as they related to teachers attitudes toward consultation. Findings suggested that the number of years a teacher had taught was negatively correlated with their preference for consultation. Moreover, the more years spent in the same school, the more likely teachers were to prefer consultation. Overall, teachers surveyed in the study by
Weissenburger, Fine and Poggio (1982) showed a slight preference for consultation over referral. Separating age, years of professional experience, and years in current school could help explain these contradictory results.

Dean (1980) found that teacher perceptions of the role of the school psychologist changed as a function of experience. Less experienced teachers were more likely to perceive the role of the school psychologist as one that provides services that focus on classroom behavior problems and social problems. While both groups reported the school psychologist as an appropriate referral source for evaluation of emotional and learning problems, the experienced teacher perceived behavior issues in the classroom as a discipline problem, rather than one that required intervention services of a school psychologist. Less experienced teachers perceived behavior issues in the classroom were as much within the role of the school psychologist as emotional problems (Dean, 1980).

Summary

The utilization of problem solving in school psychological services is one distinction between traditional and alternative service delivery models. The traditional model based on a medical model (with its emphasis on internal pathology) is incongruent with the use a problem solving framework. The medical model (and therefore the traditional service delivery model) focuses on assessment and diagnosis. Early intervention is minimally emphasized. Traditional assessment is conducted with norm-referenced measures and labels based on hypothetical constructs are assigned. Follow up is done on an infrequent basis. The alternative service delivery model exhibits significant overlap with the problem-solving model. The alternative model (focusing on external or environmental causes) intervenes before problems become severe, utilizes CBA/M and
FBA to determine specific skill or motivational gaps to select targets for remediation. Progress can be monitored very frequently and further assessment/ referral depends on the individual's response to intervention. With each revision of IDEA, the trend is away from strictly traditional practice alone, to incorporating alternative practices to enhance the delivery of school psychological services.

Arguably, one of the biggest differences between the traditional service delivery model and the alternative service delivery model is the emphasis on consultation. Understanding variables that affect consultation is important because research suggests that consultees' perceptions, characteristics, and type of presenting problem impact teachers' preferences for remediation. However, while inexperienced teachers are more likely to view the role of school psychologists more broadly, results of research regarding age and years of teaching experience on preferences for remediation are mixed (Weissenburger, Fine, & Poggio, 1982; Gutkin & Bossard, 1984; Brown, Pryzwansky, & Schulte, 2001). Moreover, very little is known about the impact the number of years of teaching experience at the current school and the number of times a teacher has consulted with a school psychologist has on teacher preference for specific remediation alternatives.

Although, teachers perceive themselves as more competent in preassessment teams when dealing with academic instead of behavior problems, it is unclear if this perception translates into preferences in practice. In addition, an alternative service delivery model frequently and effectively uses consultation as a process to remediate difficulties in the school environment. However, it is uncertain whether there is any difference in teacher preferences under this model from the traditional service delivery model.
The purpose of this study was four-fold. First, the purpose of this study was to replicate earlier findings that flexible service delivery models and traditional service delivery models differ in the rate of referrals and the rates of consultation. Second, this study focused on current practice related to rates of consultation and referral by examining how the type of service delivery model (i.e., flexible service delivery versus traditional service delivery) influences teachers’ preference for consultation or referral. Third this study also examined how the type of presenting problem (academic or behavior problem) influences teachers’ preference for consultation or referral. Finally, this study investigated how consultee characteristics (age, gender, education level, grade level taught, years of experience, number of years at current school, and number of times consulting with a school psychologist) influences teachers’ preference for consultation or referral.

Hypotheses

Out of these four purposes came five hypotheses.

Research Hypothesis 1. The first hypothesis asked which service delivery model makes more referrals to a school psychologist for testing. Specifically, it was hypothesized that the individuals in the traditional service delivery model make significantly more special education eligibility referrals than individuals in the flexible service delivery model. This hypothesis was based on the basic premise that the flexible service delivery model reduces the number of special education referrals.

Research Hypothesis 2. The second hypothesis asked which service delivery model engages in more consultation with a school psychologist. Specifically, it was hypothesized that individuals in a flexible service delivery model consult with the school
psychologist significantly more often than individuals in the traditional service delivery model. This hypothesis was based on the consultation driven nature of the flexible service delivery model, and that individuals in this model may be more receptive to consultation and engage in the practice more frequently than would teachers in a traditional service delivery model.

Research Question 3. The third question sought to find out if there was a significant preference for remediation of academic problems across the two service delivery models. Data related to the type of presenting problem are inconsistent, thus the extent to which consultation is preferred more frequently between traditional service delivery and alternative service delivery sites is difficult to formulate.

Research Question 4. The fourth question attempted to determine if there was a significant difference in preference for remediation of behavior problems across service delivery models. Data related to the type of presenting problem are inconsistent, thus the extent to which consultation is preferred more frequently between traditional service delivery and alternative service delivery sites is difficult to formulate.

Research Question 5. The fifth question examined demographic information provided to predict preferences for remediation. Past studies suggest that years of experience was a significant predictor of teachers’ preference for consultation. With regard to teacher characteristics, research suggested that younger, more inexperienced teachers would be likely to choose consultation over referral, based on teacher perceptions of school psychologists’ roles and the potential gain from consultation which could possibly be a factor of more recent training.
Method

Participants

Two hundred and six surveys were mailed to teachers in the state of Illinois. Of these 206 surveys, 100 were sent to teachers in traditional service delivery sites, and 106 were sent to teachers in flexible service delivery sites. The sites were randomly selected from lists of school districts sent by special education cooperative or regional offices of education. Participation was requested by phone contact with the building principal. During the initial request for participation, the administrator was asked whether his building participated in flexible service delivery or traditional service delivery. Most principals knew which service delivery model was employed in their district. However, if they were unsure, then that location was dropped from consideration as a site to participate in the survey. After agreeing to participate in this study, all principals provided a list of kindergarten through fifth grade regular education teachers in their district.

Materials

All materials including an introduction letter, informed consent, a demographic sheet, the two scenarios, and a debriefing sheet were printed on white, 8 ½ x 11-inch paper. The demographic sheet requested general information such as gender, age, years of experience, level of education, grade level taught, years at current school, and number of times consulting with a school psychologist (see Appendix A). The informed consent (Appendix C) provided the participant more in depth information about the purpose of the survey as well as assuring that all participation is voluntary and that all responses are confidential.
All teachers received a survey (see Appendix B). This survey consisted of two scenarios regarding a hypothetical student in the classroom and four choices of how to deal with each student. The first scenario depicted a student with academic issues, while the second depicted a child with only behavioral issues (see Appendix B). Both students in the scenarios were male and in the same grade level. Scenarios to be used in this survey were constructed such that each contained 121 words. Participants were asked to check their individual preference for how to proceed with remediation of the respective problem, and to only select one choice. These choices consisted of consult with a school psychologist, refer individual for testing, continue with current intervention/instruction, and other.

Procedure

School districts were randomly selected from lists provided by special education cooperative or regional offices of education. Administrators (superintendents and principals) were contacted by phone to request permission to recruit participants from selected districts/buildings. Those administrators who granted permission to conduct research within their school were then asked to provide a list of names of kindergarten through fifth grade regular education classroom teachers. Each administrator was then asked to write a brief memorandum to his staff to inform them that he had given consent for the research and to let the teachers know that they may be receiving a letter from the researcher. The names, given by administrators as potential participants, were assigned numbers to help with tracking and mailing, but were not used to identify individual results. Selection of participants was based partly upon consent from administrators and those individuals who returned surveys. In addition, flexible service delivery sites were
located in or near the Illinois cities of Chicago, Rockford, Peoria, Springfield, East St.
Louis, and Champaign areas. For the traditional service delivery sites, surveys were also
sent to teachers in or near these areas. Two hundred and six packets were mailed out that
contained a letter of introduction, informed consent, the two scenarios, and a self
addressed stamped envelope. Two weeks after the initial mailing, those individuals who
had not completed a survey, received an additional letter with identical contents. The
introductory letter (see Appendix D), informed consent (see Appendix C), demographic
sheet, and survey were stapled together to organize materials. The sequence of the
scenarios was balanced for order of presentation. A debriefing statement was mailed to
everyone two weeks after the second mailing of the surveys (see Appendix E).

After reading the introductory letter, teachers read and signed the informed
consent sheet. Participants then filled out the demographic information sheet. The
participants read the first scenario and indicated their preference with regard to
proceeding with the remediation process. Then, individuals read the second scenario and
indicated their preference. Data were collected in the form of frequency information, (i.e.
how many chose consultation as a first choice, etc). A Chi-Square analysis was
conducted on the results to determine a preference for remediation between educators in
traditional service delivery and flexible service delivery for academic and behavior
problems. An independent t-test was conducted to determine if there was a significant
difference in the referral rate and number of times consulting with a school psychologist
for teachers in the traditional service delivery and the flexible service delivery. A
discriminant function analysis was conducted on all demographic variables to determine
what variable(s), if any, predicted preferences for remediation. The minimum acceptable return rate for the survey was 50% (Dillman, 1978).

Results

Table 1 displays a breakdown of the demographic information for the participants of this study. Of the 206 surveys that were sent out, 113 were returned. Therefore, the return rate for this study was 55% and considered minimally acceptable. Of these 113 participants in the study, 94.70% were women \((n = 107)\) and 5.30% were men \((n = 6)\). The age of the participants ranged from 22.00 to 60.00, with the mean age being 41.85. The years of education of the participants ranged from 3.50 to 8.75, with the mean number of years of education being 5.29. The average years of teaching experience was 16.04, with the number of years of teaching experience ranging from 1.00 to 34.00. Of these participants the number of years of experience teaching in the current school district ranged from 1.00 to 34.00 with the mean being 11.64. Looking at grade level taught, 22.10% taught kindergarten \((n = 25)\), 21.20% taught first grade \((n = 24)\), 14.20% taught second grade \((n = 16)\), 15.90% taught third grade \((n = 18)\), 12.40% taught fourth grade \((n = 14)\), and 11.50% taught fifth grade \((n = 13)\). Statistics on type of service delivery employed where the teacher works indicates that 58.40% are from flexible service delivery sites \((n = 66)\), and 41.60% are from traditional service delivery sites \((n = 47)\). The average number of times the participants consulted with a school psychologist during the past twelve months was 5.42, and ranged from 0.0 to 72.00. The number of referrals to a school psychologist for testing in the past twelve months as reported by the participants ranged from 0.0 to 6.00, with a mean of 1.79.
Research Hypothesis 1. An independent samples t-test was conducted on the number of referrals to the school psychologist for testing over the past twelve months reported by participants to determine if a significant difference existed between those participants in the traditional service delivery model and those in the flexible service delivery model (see Table 2). There was no significant difference between the two service delivery models in the number of referrals to the school psychologist for testing reported over the past twelve months, \( t(1, 113) = 1.37, p > 0.05 \).

Research Hypothesis 2. An independent samples t-test was conducted on the number of times reported consulting with a school psychologist in the past twelve months to determine a significant difference at the 0.05 level between those participants in the traditional service delivery model and those in the flexible service delivery model (see Table 2). There was a significant difference in the number of times consulting with a school psychologist over the past twelve months between the two service delivery models, \( t(1, 113) = 2.23, p = 0.03 \). Teachers in the flexible service delivery model (\( M = 6.89 \)) reported consulting with school psychologist significantly more times than those teachers in the traditional service delivery model (\( M = 3.37 \)).

Research Question 3. A Chi-Square Test of Independence was conducted on teachers’ preference to help students in the classroom experiencing academic difficulties. Participants’ choices of how to best help the student in the classroom included: consult with a school psychologist, refer to a school psychologist for testing, continue with current instruction or previous intervention, and other. Due to a large number of ‘other’ responses, the ‘other’ category was examined further. These ‘other’ responses specified by participants fell into three general categories: consult with someone other than a
school psychologist, refer to another professional other than a school psychologist, and try something new with the student. Therefore the 'other' responses were recoded into one of these three categories. If any response did not fit the new categories, then it remained as an 'other'. One rater recoded the 'other' responses, and a second rater did likewise. Inter-rater agreement was 98.00%.

The results of the Chi-Square Test of Independence on teachers' preference for remediation of students experiencing academic problems indicated a significant difference $\chi^2 = (1, N = 113) = 7.67, p < 0.01$ (see Table 3). To investigate these differences, the Marascuilo method for multiple comparisons among proportions was used to conduct follow-up tests, (Glass & Hopkins, 1984). There was no significant difference between the proportion of teachers in the flexible service delivery model and the proportion of teachers in the traditional service delivery model that chose 'refer to the school psychologist for testing' to help students with academic problems, $\chi^2 = (1, N = 113) = 1.88, p > 0.05$. There was no significant difference between the proportion of teachers in the flexible service delivery model and the proportion of teachers in the traditional service delivery model that chose 'consult with the school psychologist' to help students with academic problems, $\chi^2 = (1, N = 113) = 2.45, p > 0.05$. There was no significant difference between the proportion of teachers in the flexible service delivery model and the proportion of teachers in the traditional service delivery model that chose 'continue with current instruction or previous intervention' to help students with academic problems, $\chi^2 = (1, N = 113) = 0.00, p > 0.05$. There was no significant difference between the proportion of teachers in the flexible service delivery model and the proportion of teachers in the traditional service delivery model that chose 'other' to
help students with academic problems, $\chi^2 = (1, N = 113) = 0.53$, $p > 0.05$. There was no significant difference between the proportion of teachers in the flexible service delivery model and the proportion of teachers in the traditional service delivery model that chose 'refer to another professional other than a school psychologist' to help students with academic problems, $\chi^2 = (1, N = 113) = 0.01$, $p > 0.05$. There was a significant difference between the proportion of teachers in the flexible service delivery model and the proportion of teachers in the traditional service delivery model that chose 'consult with someone other than the school psychologist' to help students with academic problems, $\chi^2 = (1, N = 113) = 5.76$, $p < 0.05$.

Going over the individual surveys to identify the other consultation sources, indicates three types of responses to whom teachers would like to consult: flex team or building based team (which includes a school psychologist), special education teacher, or regular education teacher (including grade level teachers and reading specialists, i.e. Title I and Reading Recovery). For those participants in the flexible service delivery model, seven teachers chose to consult with a regular education teacher (reading specialist), six chose to consult with the flex team, and one chose to consult with a special education teacher. For those in the traditional service delivery model, two teachers chose to consult with a regular education teacher, and one teacher chose to consult with the building based team. There was no significant difference between the proportion of teachers in the flexible service delivery model and the proportion of teachers in the traditional service delivery model that chose ‘try something new’ to help students with academic problems, $\chi^2 = (1, N = 113) = 1.70$, $p > 0.05$. 
Research Question 4. A Chi-Square Test of Independence was conducted on the teachers’ preference to help students in the classroom experiencing behavior difficulties. The results of the Chi-Square Test of Independence on teachers’ preferences for remediation of students experiencing behavior problems indicated no significant difference $\chi^2 = (1, N=113) = 1.729), p > 0.05$ (see Table 3).

Research Question 5. A discriminant function analysis was conducted on the demographic variables (age, years of education, grade taught, years of teaching experience, and service delivery model). Results indicated that for remediation of academic problems, none of the demographic variables emerged as predictors, $p > 0.05$. For remediation of behavior problems, none of the demographic variables emerged as predictors for preference for remediation, $p > 0.05$.

Discussion

The results from this study compared participants from a flexible service delivery model to participants from a traditional service delivery model in terms of the number of referrals reported by each teacher for testing to a school psychologist in the past twelve months indicated that there was no significant difference in the number of referrals to a school psychologist for testing between the two models. These results contradicted the results found in Gutkin, Singer, and Brown, (1980) as well as Safran & Safran, (1996) which found that a prereferral component would decrease referrals for testing. This lack of a decrease in referrals also contradicted the basic premise that the flexible service delivery model is useful in decreasing referrals for special education, (Swerdlik, 2001).

Comparing participants from a flexible service delivery model and participants from a traditional service delivery model in terms of the number of times consulting with
Teachers' Preference for Remediation

In the past twelve months indicated a significant increase in consultation for those in the flexible service delivery model. These results agreed with findings from Safran & Safran (1996) that found an overall increase in the use of consultation services when a prereferral component was involved. In addition, these results supported the basic premise of flexible service delivery that the model relies on collaboration for effective decision making for students experiencing difficulties.

Participants in the two service delivery models were compared in terms of teachers' preferences for remediation (i.e., refer for testing to school psychologist, consult with psychologist, continue with current instruction/intervention, consult with someone other than psychologist, refer to someone other than a school psychologist, and other). These results indicated that there was no significant difference in teachers' preferences for remediation when dealing with a student experiencing behavior problems. However, there was a significant difference in teachers' preference when dealing with a student experiencing academic problems. The difference in teachers' preferences between the two groups was the significantly greater number of teachers in the flexible service delivery model that selected to consult with someone other than a school psychologist. Teachers' sources for consultation (other than a school psychologist) were: flexible service delivery team or building based team (which school psychologists are a part of), special education teacher, or regular education teacher (including grade level teachers and reading specialists, i.e. Title I and Reading Recovery). A mismatch was evident between actual practice (number of times consulting with a psychologist), and teachers' preference for remediation of academic problems. Teachers in the flexible service delivery model reported consulting more often with school psychologists in actual
practice, however preferences for remediation of academic problems indicated an increase in the number of individuals choosing to consult with someone other than a school psychologist. This may be explained partially by the fact that approximately half of the participants that chose to consult with someone other than a school psychologist specified the flexible service delivery team as the source of consultation, which includes a school psychologist.

The significant difference in teacher preferences for students experiencing academic problems and lack of significant difference in teacher preferences for students experiencing behavior problems may be explained by a variety of hypotheses. First, both teachers in the flexible service delivery model and the traditional service delivery model evidenced an equal preference for consultation with a psychologist across the type of presenting problem, which was consistent with results from Gutkin, Singer, and Brown (1980) and found an equal preference for consultation with a psychologist regardless of the type of presenting problem. Second, and more importantly, when dealing with students experiencing academic problems, teachers in the flexible service delivery model chose to consult with someone other than a school psychologist significantly more often than those teachers in the traditional model. This may be attributed to findings from Myles, Simpson, and Ormsbee (1996) that discovered prereferral team members (including regular education teachers) perceived themselves as being more effective in identifying solutions for students experiencing learning problems than for behavior problems that may be related to increased skills. Second, this preference for consultation from someone other than a psychologist may also be related to research found in Wilson, Gutkin, Hagen, & Oats (1997) that found while transdisciplinary consultation (or
consultation between disciplines) is important in helping difficult to teach children in the classroom, regular education teachers have a pattern of consulting primarily with other regular education teachers (interdisciplinary consultation).

Results from this study indicated that demographic variables were not significant predictors of teachers’ preference for remediation. When looking at teachers’ preference for remediation of academic problems, none of the demographic variables were a factor. These results agreed with findings from Gutkin (1980), which found that teachers’ preference did not vary as a result of the characteristics of the individuals due to the general appeal of consultation regardless of individual characteristics. Results regarding demographic variables from this study supported research conducted by Ford & Migles (1979) finding that grade level and level of experience did not affect preferences. These results disagreed with findings from Gutkin & Bossard (1984), who found the more years teachers had taught the less they preferred consultation.

While yielding useful information, this study also has a number of limitations. One limitation is the definition of a referral in the flexible service delivery system. Do teachers consider a referral to the flexible service delivery team a referral to the psychologist for testing, or consider it a consultation with a psychologist? The answer to this question is pivotal, and may be an answer to why there was no decrease in the number of referrals to a school psychologist found in this study between the participants in the flexible service delivery model and those in the traditional service delivery model. Another limitation is the reliance on individual teachers to accurately report the number of referrals to a school psychologist for testing and the number of times consulting with a school psychologist over the past twelve months. These are only estimates from each
individual, and more accurate numbers of referrals may have been obtained from record review. In looking at individual referral and consultation rates instead of the rates for each school, there is also a statistical disadvantage and may limit the results.

Another limitation to this study may be the format. Surveys with brief descriptions of students and choices for how they would like to help students may not provide enough information about the presenting problem as a student in the teachers' own classroom, and therefore would yield different result than collecting record review or case study information. The options given to help the students in the scenarios were also a limitation, since there were a large number of 'other' responses. In replicating this study, seven choices would be given to help the student, incorporating the three that emerged from the 'other' responses. Another change that should be made for replication of the study would be a statement on the demographic information page where participants are asked how many referrals they have made to psychologist. In addition, participants would be instructed not to count referrals to the flexible service delivery team. This distinction between types of referrals is necessary due to the purpose of each type of referral, and result in more accurate rates of referral for testing to a school psychologist.

The minimally acceptable return rate is also a limitation. Since information is not available for those individuals that did not return the survey, it is difficult to determine if there are characteristic of those individuals compared to the characteristics of the individuals who completed the survey and possibly adding bias to the study. In replicating this study, measures to increase the return rate would be utilized. In addition, the sample size would also be increased.
Future research and replication should focus on teacher preferences, remediation of academic and behavior problems, demographic variables, rates of referral and consultation, and service delivery model. This study has attempted to empirically investigate and increase our understanding of the impact the flexible service delivery model has on consultation and referral rates, the impact presenting problem and service delivery model have on teachers' preferences for remediation, and the demographic variables that might predict teachers' preferences for remediation. While these results provide additional empirical information regarding flexible service delivery, consultation, and consultees, further replications and variations along this line of research are needed.

Implications of this study for future practice and training suggest that school psychologists need additional training in classroom interventions for academic and behavior problems, but especially for academic issues. Teachers may engage in consultation, but are showing an increase in preference for consultation with others for academic problems. This implies that in actual practice school psychologists do not stand out from teachers as experts in dealing with academic problems. If school psychologists fail to be seen as the 'expert' or stand out from teachers in terms of knowledge and experience, then school psychologists may be seen as no longer necessary to the school system.
References


Fuchs, D., and Fuchs, L. S., (1996). Consultation as a technology and the politics of


Appendix A

Response number ______

All information provided will remain completely confidential.

Please circle the appropriate response.

Gender: M  F

Age: ______________

Number of years of college education: ______________

Grade level taught: __________

Years of teaching experience counting this current year: ______________

Number of years at this school counting this current year: ______________

Number of times consulting with a school psychologist in the past 12 months (approximate): ______________

Number of referrals for testing/evaluation you have made in the past 12 months (approximate): ______________
Appendix B

The following paragraph describes a hypothetical student in your classroom. After reading each paragraph, select your first preference of what should be done to help him.

Student One:

Ernest is a boy in your class, and he is experiencing reading problems. Although he has not been diagnosed with a reading disability, he reads slowly, omits words from text when reading aloud, often has difficulty sounding out words, and sometimes substitutes words (for example, reads “the” for “that”). You have already tried two instructional strategies based on collaborative recommendations from other teachers in your school. However, these attempts have not produced any educationally significant gains in reading. You have also met with both of Ernest’s parents and discussed his progress. Ernest only has a reading problem. His classroom behavior is exceptional. Select your preference (by checking only one) for what should be done next to help Ernest with his reading problem. What would you prefer to do next?

_____ Send a referral to the school psychologist for testing.

_____ Consult with the school psychologist for another perspective and additional information.

_____ Continue with current instruction or one of the two interventions you tried before.

_____ Other: Please describe in detail something other than another intervention, talking with other teachers for advice, or the options provided above.
The following paragraph describes a hypothetical student in your classroom. After reading each paragraph, select your first preference of what should be done to help him.

**Student Two:**

Merrill is a boy in your class, and he is experiencing behavior problems. Although he has not been diagnosed with a behavior disorder, he continuously leaves his seat without permission, talks excessively with other students, is often not on task, and engages in disruptive behavior (for example throws paper wads, interrupts your speaking, and belches loudly in class). You have already tried two behavior modification strategies based upon recommendations from other teachers in your school that have not produced any educationally significant gains. You have also met with Merrill’s parents to discuss his behavior and have sent him to the principal numerous times. Merrill is only having behavior problems. His academic progress is exceptional. Select your preference (by checking only one) for what should be done next to help Merrill with his behavior problem. What would you prefer to do next?

- [ ] Send a referral to the school psychologist for testing.
- [ ] Consult with the school psychologist for another perspective and additional information.
- [ ] Continue with current instruction or one of the two interventions you tried before.
- [ ] Other: Please describe in detail something other than another intervention, talking with other teachers for advice, or the options provided above. 

[Blank lines for additional response]
Appendix C

After reading the following paragraphs, please sign and date below.

Informed Consent

This is a research project on teacher preferences. First, you will be asked to provide demographic or background information about yourself. Second you will read about two students who present problems, and respond to a series of choices about how to help them. The goal is to better understand how teachers view problems encountered in the classroom, and how they deal with them.

In addition to contributing to knowledge, the research will fulfill my thesis requirement for the Specialist Degree in School Psychology. Any information obtained will be kept confidential. All responses will remain anonymous. For the purpose of data management, each survey will receive a number that will not identify the individual or responses. Only group averages or numbers will be reported not individual responses. While the administration in your building has given me consent to ask your participation, the administration will not be provided copies of the completed surveys.

Participation in this survey is voluntary, and there are no risks involved.

I, __________________________ have read the above and agree to participate in this study.

______________________________ (signature) __________________________ (date)
Appendix D
Letter of Introduction

My name is Kathy Wilson, and I am a graduate student at Eastern Illinois University. One of the requirements for my degree is the completion of a thesis. I would like to ask you to participate in a study related to teacher preferences in dealing with work related issues. This study has already been approved by the Ethics Committee in the Psychology Department at Eastern Illinois University.

Enclosed you will find an informed consent form, a demographic information sheet, and a survey. The written consent provides information about your participation and the general purpose behind the study. By signing the form, you attest that you have been provided details about your participation and agree to participate. The demographic information sheet asks you to provide helpful information about yourself. The survey consists of two student scenarios. After reading each scenario, please indicate your first preference on how to help that particular student.

If you should have any further questions concerns, or wish to find out the results of this study, please feel free to contact me by phone at 618-592-3444 or via email at katlynwil@frsb.net or by contacting my thesis supervisor, Dr. Gary L. Cates, at 217-581-2128 or glcates@eiu.edu. If you have questions with regard to the protection of human participants in research please call Dr. Assege Haile Mariam at 217-581-6615.

I would like to thank you for your time and your consideration to participate.

Sincerely,

Kathy Wilson
Eastern Illinois University Graduate Student

Gary Cates, PhD
Thesis Supervisor
Appendix E  
Debriefing

Recently you participated in a study related to teacher preferences in dealing with work related issues. Participation included providing some background information about yourself, as well as reading about two students and responding about your preferences to help each student. This study was part of a thesis requirement for a graduate degree through Eastern Illinois University.

This letter is to provide you with more in depth information regarding the purposes of the study. This study attempted to determine teacher preferences when encountering students with problems in the classroom. Of specific interest was whether teacher preferences were the same or different when the problem encountered in the classroom was an academic issue or a behavior issue. The goal was also to determine if any of the demographic information (gender, age, level of education, grade level taught, years of experience, number of years at current school, and number of times consulting with a school psychologist) impact teacher preferences. Out of the 206 surveys that were sent out, 100 went to teachers where special education services are based on a test and place model, and 106 were sent to teachers where special education services are utilizing a new more flexible model for delivery of services. The purpose of this was to determine any differences in teacher preferences between the two special education service delivery systems. To find out the overall results of the study, contact me by phone at 618-592-3444 or via email at kaulynwil@frsb.net or by contacting my thesis supervisor, Dr. Gary L. Cates, at 217-581-2128 or glcates@eiu.edu. Thank you again for your participation.

Sincerely,

Kathy Wilson  
Eastern Illinois University Graduate Student

Gary Cates, PhD  
Thesis Supervisor
Table 1

*Participant Information.*

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<th>Gender</th>
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<td>12.40%</td>
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<tr>
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Table 2

*Averages for Referral and Consultation Rates By Service Delivery Model*

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<td>Referrals to School Psychologist</td>
<td>1.94</td>
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<td>Times Consulting with School Psychologist</td>
<td>6.89</td>
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Table 3

Proportion of Teachers’ Preferences For Remediation of Students With Academic Problems By Service Delivery Model

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<td>Refer to School Psychologist</td>
<td>0.167</td>
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<td>Consult with School Psychologist</td>
<td>0.303</td>
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<td>Continue with Current Instruction/Intervention</td>
<td>0.045</td>
<td>0.043</td>
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<tr>
<td>Other</td>
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<td>0.021</td>
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<tr>
<td>Refer Other</td>
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<td>Consult Other</td>
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<tr>
<td>Try Something New</td>
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Table 4

Proportion of Teachers' Preferences For Remediation of Students With Behavior Problems By Service Delivery Model

<table>
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<th>Preference</th>
<th>Flexible</th>
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</thead>
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<tr>
<td>Consult Other</td>
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<td>0.043</td>
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<tr>
<td>Try Something New</td>
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