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UNIVERSITY OF ALBERTA

EFFECTS OF SUPERVISOR PRESENCE ON COMMITMENTS MADE AND CARRIED OUT BY STUDENTS

BY

© KERRY S. SHERSTAN

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

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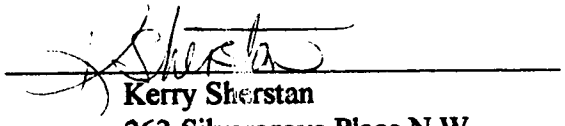

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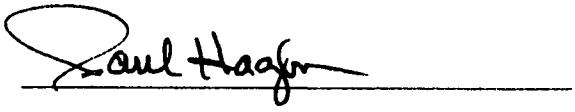

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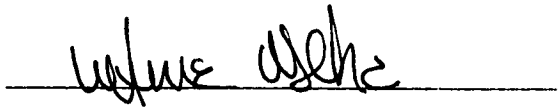

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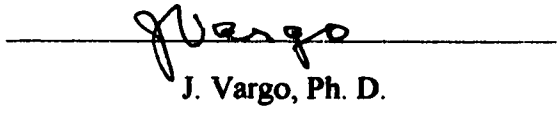

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In memory of my father

Timothy P. Sherstan

1946 - 1994

ABSTRACT

This investigation addressed the need for more supervision effectiveness studies and identified types of commitments made and carried-out by supervisees during the supervisory conference. The purpose was to determine whether the number of commitments made and proportion completed differed significantly depending on the presence of the clinical supervisor during the supervisory conference, which routinely included peer observers. Participants were twenty-nine first year speech-language pathology graduate students enrolled in their first clinical placement in a campus clinic under the supervision of three clinical professionals. A 2 x 3 within-subjects experimental design was used. To control for order effects, half of the subjects were assigned to a supervisor present condition first, while the other half were assigned to a supervisor absent condition first. During the supervisor present condition, two direct clinicians, two peer observers and the supervisor audiotaped and made commitments during two supervisory conferences. During the supervisor absent condition, two direct clinicians and two peer observers followed identical instructions. Participants in both conditions documented their commitments and follow-through behavior. Commitments were classified into five types for later comparison by type. Significant differences among types of commitments made were found. A higher rate of follow-through was seen when the supervisor was present. A significant interaction between supervisor presence and commitment type was revealed. It was concluded that supervisor presence had a desirable effect on supervisees' follow-through behavior. These findings broaden the profession's understanding of conferences between students and their supervisors and establish the importance of the supervisor's presence on students' follow-through behavior. This information, combined with the findings of other effectiveness studies may suggest a combination of factors leading to more effective supervision.

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CHAPTER 1

INTRODUCTION

Clinical supervision is "an interactive process between the student and supervisor in which both are working together to find the most productive ways of effecting the diagnostic or therapeutic relationship" (Ward & Webster, 1965, p.104). The importance of supervision to the professional preparation of student clinicians (supervisees) and to the provision of quality clinical services has been an assumption of considerable magnitude and early origin (ASHA, 1985). Although many investigators have stressed the need for supervision effectiveness studies in speech-language pathology and audiology (ASHA, 1985; Anderson, 1988; Smith & Anderson, 1982; Tufts, 1984), there continues to be a dearth of such information. The American Speech and Hearing Association's (ASHA) Committee on Supervision stated that "we have no data to indicate that supervision makes a difference in the effectiveness of clinicians at any level of training. We also have no knowledge of critical factors in supervision methodology" (ASHA, 1978, p.480). Previous literature on the effectiveness of supervision has centered on perceived effectiveness rather than concentrating on actual effectiveness, which might be assessed in terms of positive change in supervisees as a result of the supervisory process (Shapiro & Anderson, 1989). Finding out that supervisees do anything differently than they did before, as a result of having met with their supervisors, seems to be a minimal criterion for actual supervisory effectiveness (Shapiro & Anderson, 1989). Perceived effectiveness and actual effectiveness are compared and contrasted later in this text.

A vast amount of literature from other disciplines such as education, psychology and business has focused on supervisory models and the importance of conference interactions. Speech-language pathology realized the need for a sound theoretical basis for the supervisory process and borrowed extensively from the literature in those other

fields to develop its own models. Such models include the Molar Model (Oratio, 1977), a Rogerian orientation (Caracciolo, Rigrodsky & Morrison, 1978), the Trigonal Model (Farmer & Farmer, 1989), and the Clinical Supervision Model (Anderson, 1988). Although these models differ in form, each one recognizes the importance of differential supervision based on active supervisee participation, the development of problem solving and self-analysis skills, and clinical independence as the ultimate goal of the supervisory process.

Research on the supervisory process in speech-language pathology has previously focussed on describing the conference and the participants' roles in the conference (Hatten, 1966; Culatta & Seltzer, 1976, 1977; McCrea, 1980; Dowling & Shank, 1981; Irwin, 1981; Pickering, 1984; Roberts & Smith, 1982; Tufts, 1984). Certain components of the supervisory process considered to be important to cultivating students' independence were not found in the conference. Conferences tended to be direct-evaluative. The supervisor assumed the dominant role by talking the most, initiating and structuring the interactions. The supervisee was passive, reacting and responding to the supervisor's statements. Emphasis tended to be on the teaching-therapy process or the client, whereas little discussion took place about the supervisee, the supervisor or the supervisory process (Anderson, 1988; Culatta & Seltzer, 1976, 1977; Hatten, 1966; Irwin, 1981; McCrea, 1980; Pickering, 1984; Roberts & Smith, 1982; Shapiro, 1984; Smith & Anderson, 1982; Tufts, 1984; Underwood, 1973). Research describing supervisory conferences also revealed that the models mentioned above were not being implemented in supervisory practices (Brasseur & Anderson, 1983; Caracciolo, Rigrodsky & Morrison, 1978; Culatta & Seltzer, 1976; Dowling & Wittkopp, 1982; Hatten, 1966; McCrea, 1980; Pickering, 1984; Tufts, 1984; Underwood, 1973). Investigators realized that something needed to change.

Researchers evidently reasoned that, since supervisors tended to control most of the discussion in conferences, it would be most efficient to focus on supervisors to elicit more theoretically sound conference behaviors. A few studies (Culatta & Seltzer, 1977; Cirrorell-Strong & Ensley, 1982; Hagler & Anderson, 1987; Wellman, 1991) attempted to do this. However, only limited or specific changes were observed in supervisors' direct behavior during the typical conference. It is perhaps equally logical to intervene with the supervisee to facilitate the desired change in supervisory interaction. Investigators probably rationalized that, since the conference had two contributors, research could legitimately change its focus from the supervisor to the student. McFarlane & Hagler (1992a, 1992b) studied the effects of a supervisee prepared agenda on conference interaction between supervisees and a peer and between supervisees and their clinical supervisors. Results indicated that the agenda was effective in increasing student clinician initiations and decreasing peer supervisor and traditional supervisor initiations. Additional studies have used other intervention techniques to modify supervisee conference behavior. One technique focussing on changing the supervisees' behavior during the conference is *planning*. Anderson (1988) emphasized that systematic planning is a critical component in the supervisory process leading ultimately to a self-evaluative, independent clinician. Professional growth results in "careful, systematic four-fold planning: (1) for the client, (2) for the clinician, (3) for the supervisee, and (4) for the supervisor" (Anderson, 1988, p.93). From descriptions of the typical conference, it appears that planning for the client has been virtually the only focus. Now it is being suggested that planning for all four participants is most desirable for encouraging positive change in conference interaction.

Until Shapiro & Anderson's (1989) study, the effectiveness of setting contracts and establishing specific objectives had not been empirically studied. They used a written agreement (or contract) to determine what effects planning and documenting commitments had on behaviors of supervisees. They asserted that the planning

component of the supervisory process could identify critical factors that may lead to effective clinician growth. If students carried out the commitment(s) made during supervisory conferences, Shapiro & Anderson (1989) considered this to be a positive and direct result of the supervisory interaction.

In summary, it seems that focusing on the supervisee to facilitate desired change in supervisory interactions may be just as appropriate as focusing on the supervisor. It seems that combining factors such as peer supervision, agenda use, and planning and documenting commitments might lead to more effective supervisory interactions. Two studies have demonstrated that intervening through strategic planning, for the client *and* the supervisory process, is important (McFarlane & Hagler, 1992a, 1992b; Shapiro & Anderson, 1989). On the strength of those preliminary findings regarding the importance of factors other than supervisor behavior, future research should continue to study the importance of the supervisee to growth oriented conference interaction.

CHAPTER 2

LITERATURE REVIEW

A review of the supervisory process in speech-language pathology will be discussed in this section. Five main areas will be covered in this review. First, an overview of the development of supervision will be provided. Second, supervision theories from other disciplines will be described. Third, supervision theories from speech-language pathology will be reviewed. Fourth, supervisory methods will be outlined. Fifth and last, research on the supervisory process, including studies of supervisory conference effectiveness, will be reviewed.

The Development of Supervision in Speech-Language Pathology

"Interest in the study of the supervisory process in speech pathology and audiology has progressed slowly but steadily, with a recent intensification of efforts" (Anderson, 1988, p.27). Each decade has brought new developments that provide us with our current knowledge base.

During the 1970's, interest in the supervisory process began to increase. Interest groups were formed and a wealth of literature was published in the form of conference presentations, dissertations, journal articles, and textbooks (Anderson, 1988). In 1974, the Committee on Supervision in speech pathology and audiology was established and was responsible for promoting current information, research, significant issues, standards and guidelines on the supervisory process (Anderson, 1988). Also in 1974, the Council of University Supervisors of Practicum in Speech-Language Pathology and Audiology (CUSPSPA) was formed. The group served "as a resource for information about the supervisory process and as an advocacy group for the practice of supervision" (Crago & Pickering, 1987, p.10).

The 1980's brought a remarkable amount of research and a number of additional textbooks (Anderson, 1988; Crago & Pickering, 1987; Farmer & Farmer, 1989) to the profession . A Canadian Special Interest Group, similar to CUSPSPA, was also formed at about this time. During this time, the Journal of Speech and Hearing Research published its first articles on supervision and there was a "change in policy of the ASHA Publication Board to permit the publication of research on supervision in journals of the profession other than Asha" (Anderson, 1988, p. 26). Special interest groups continued to form. In 1985, the American Speech and Hearing Association (ASHA) legitimized supervision as an area of study and defined clinical supervision as "tasks and skills of clinical teaching related to the interaction between a clinician and client" (p.57).

Supervision research continues to flourish in the 1990's. Investigators are interested in the efficacy of supervision in speech pathology and audiology and how to positively improve clinical education practices (Gillam, Strike Roussos, & Anderson, 1990; Jans, 1993; McFarlane & Hagler, 1992a, 1992b; Wellman, 1991). Literature on supervision in speech-language pathology continues to grow as more and more journal articles, books, and conference proceedings appear. Since there is a greater interest in clinical education, special interest groups and organizations meet more regularly now. The supervision literature and special interest groups in the 1990's have an even greater emphasis on the importance of clinical education than in the past.

Summary

This review demonstrates the slow but steady increase in interest in the supervisory process in speech-language pathology and audiology. Each decade has brought more literature, convention presentations and conferences. As well, groups such as ASHA, CUSPSPA, and Special Interest Division 11 have made it possible to develop a strong and influential network of interested professionals. "Certain segments of the profession are taking more seriously than before, the needs of the supervisors, their importance to the profession, and the necessity of studying the process"

(Anderson, 1988, p.27). It is essential that researchers continue to provide empirical data to support and improve the process and practice of supervision in speech-language pathology and audiology.

Supervision Theory in Other Disciplines

Supervision as a topic of study is not new. Literature on supervision and leadership theory has been around for many years. Psychology, business management and education are the disciplines principally responsible for developing theories of supervision. Speech-Language Pathology has borrowed and adapted these theories that originally applied to patients, learners and employees to student clinicians. A short summary of some of the relevant theories in other disciplines follows.

Psychology

Supervision in psychology focuses on modifying student therapists' in-therapy behaviors while giving students "an opportunity to develop increased self-awareness" (Hess, 1980, p. 424). In order to attain this goal, supervisors use many models including "instruction, supervisor modeling, direct observation, intervention by the supervisor... (co-therapy), and feedback from direct observations or with audio/videotape recordings" (Hess, 1980, p. 425). Supervision theory is different from psychotherapy yet, according to Hess (1980), "there are many parallels in the theories and processes of these two learning processes" (p. 424).

Rogers (1965) and Maslow (1954) are two renowned psychologists who contributed to psychology literature. The core of Carl Rogers' (1965) client-centered theory revolved around the helping relationship. Rogers believed that a client's adjustment flourishes in a facilitative environment. Therefore, it was believed that therapists should offer quality personal interactions, so as to achieve client change. This led to many research reports on the effects of the facilitative environment and student therapists' interpersonal skills, which in turn, allowed for more specific methods

for teaching therapist interpersonal skills and related concepts during the supervisory process (Hess, 1980).

In Maslow's (1954) studies, he developed a human needs hierarchy. He asserted that a person has inborn needs which are arranged in a sequence of stages: physiological, safety, social, self-esteem, and self-actualization. Fullest development results in self-actualization. A person at this stage becomes self-aware and self-accepting. This theory can be applied to supervision, because one of the goals of supervision is to have supervisees become more aware of themselves, of their behavioral patterns and tendencies, to problem solve, become more confident and more knowledgeable. According to Anderson (1988), "recognizing needs for self-actualization in supervisees and helping them attain it may be one of the most significant qualities of a supervisor" (p. 34).

Business management

Two major supervision theories are mentioned in the business literature: management by objectives and situational leadership. First, the management by objectives theory states that goals or objectives set by both workers and supervisors will achieve more acceptance than those imposed by a person in authority (Hersey & Blanchard, 1982; Reitz, 1981). This theory emphasizes a joint relationship between the supervisor and the supervisee. Situational leadership is the second theory. It was developed by Hersey and Blanchard (1982) and is based on the amount of direction (task behavior) and socio-emotional support (relationship behavior) a leader must provide, given the situation and level of maturity of the supervisee. According to Hersey and Blanchard (1982), supervisees are mature when they are able to set high but attainable goals, are willing and able to take responsibility and have education and/or experience. The model also includes four behavioral styles: (1) *telling* - high task/low relationship, (2) *selling* - high task/high relationship, (3) *participating* - high

relationship/low task, and (4) *delegating* - low relationship/low task. Leadership style should change as supervisees become more "mature" and independent.

Education

Supervision theory and research is also found in the educational literature. In 1965, Blumberg and Amidon were interested in the human relationships aspect of supervision. They were particularly curious about direct and indirect supervisory styles. Their study introduced four supervisory styles: (1) high direct/high indirect, (2) high direct/low indirect, (3) low direct/high indirect and, (4) low direct/low indirect. Direct behaviors are characterized by telling and criticizing while indirect behaviors are characterized by asking and listening. Results from their study support the use of both indirect and direct behaviors in combination during supervision.

Dussault also conducted research in the field of education . In 1970, Dussault developed supervision tenets based on Carl Roger's (1965) interpersonal theory. Dussault was interested in the relationship between therapy and the teaching function of supervision. The belief was that, if facilitative interpersonal conditions were present during the supervisory conference, then therapeutic changes would occur in the supervisee.

Finally, Cogan (1973) and Goldhammer (1969) developed the clinical supervision (colleagueship) model. This was a more specific theory compared to others from which it was derived. It focused on a joint interaction between supervisors and their students. Goldhammer's (1969) model included a sequence of supervision that had five stages: (1) pre-observation conference, (2) observation, (3) analysis and strategy, (4) supervision conference, and (5) post-conference analysis. Cogan's (1973) model was similar to Goldhammer's (1969) but it had eight stages: (1) establishing the teacher-supervisor relationship, (2) planning with the teacher, (3) planning the strategy of observation, (4) observing instruction, (5) analyzing the teaching-learning processes,

(6) planning the strategy of the conference, (7) the conference, and (8) renewed planning.

Summary

Researchers and writers from psychology (Maslow, 1954; Rogers, 1965), business management (Hersey & Blanchard, 1982; Reitz, 1981) and education (Blumberg & Amidon, 1965; Cogan, 1973; Dussault, 1970; Goldhammer, 1969) have developed many different models or approaches to supervision. Although each model has some unique characteristics, there is a recurring theme in the goal of each. The ultimate goal is to have an independent supervisee who, through the supervisory process, develops self-analytic and problem solving skills. Most of the supervision theories and models from other disciplines are applicable to and provide a foundation for supervision theory in speech-language pathology. Supervision models and methods found in speech-language pathology will be reviewed in the next section.

Supervision Theory in Speech-Language Pathology

By adapting and modifying certain supervision models and theories from education (Blumberg & Amidon, 1965; Cogan, 1973; Dussault, 1970; Goldhammer, 1969), psychology (Maslow, 1954; Rogers, 1965), and business management (Hersey & Blanchard, 1982; Reitz, 1981), speech-language pathologists have developed their own models and styles for the supervisory process. Models of supervision in speech-language pathology organize and structure the supervisory process. They "provide a framework for discussing and organizing a theoretical supervision orientation" (McFarlane, 1992, p.10). They emphasize the importance of active supervisee involvement, problem-solving, and self-evaluative skills (Anderson, 1988; Caracciolo, Rigrodsky & Morrison, 1978; Farmer & Farmer, 1989; Oratio, 1977).

Oratio (1977) suggested that using a model is one of the "most convenient [ways] to think about the structure of a process" (p.129). Oratio claimed that employing a model is often the best method for obtaining desired results.

Molar Model

Oratio's model of clinical supervision (1977) proposes "intensive series of training experiences which include as major elements observation, analysis, post-therapy conferencing, didactic teaching, microtherapy, live demonstration, and actual clinical practice" (Oratio, 1977, p. 130). Supervision is the central component but each of the above mentioned elements contributes to the others and to the supervisee's "understanding of both the therapeutic and the supervisory processes" (Oratio, 1977, p. 130).

The molar model focuses on developing students' "skill areas which are critical to [their] professional development and effective therapeutic performance: technical knowledge, clinical skill, and self-exploration" (Oratio, 1977, p. 131). *Didactic teaching* allows the supervisor to expose students to theories, facts, and principles so that eventually they are able to transfer their academic knowledge to clinical knowledge. Through supervised *clinical practice*, students develop new skills that are "enhanced over time through actual clinical work" (Oratio, 1977, p. 132). Oratio (1977) admitted that "the transition from technical knowledge to actual use in practice is not easy" (p. 132). An actual model or *supervisory demonstration*, is needed to aid in the transition. *Post-therapy conferencing* refers to the "time and context immediately following therapy, in which [clinicians] can engage in self-exploration" (Oratio, 1977, p. 134). In this way, students can "integrate, discover, and develop aspects of [their] clinical personality, clinical practice, and technical knowledge" (Oratio, 1977, p.134). *Observation, analysis*, and *microtherapy* (focussing on one specific skill) allow supervisees to focus on specific behaviors that they would like to change. Put together, these elements result in a self-evaluative, independent professional. This is the ultimate goal of Oratio's model.

Rogerian Orientation

Caracciolo, Rigrodsky and Morrison (1978) applied the principles of Carl Roger's (1965) client-centered therapy and Dussault's (1970) theory of educational supervision to the supervisory process in speech pathology. One of their tenets was that facilitative interpersonal conditions aid in changing behaviors. The premise is that, if the supervisor utilizes facilitating behaviors (i.e. a mixture of non-directive & directive styles), student clinicians will "develop into ... competent, secure, and independent professional clinicians" (Caracciolo et al., 1978, p. 286).

This model has three variables essential to success. The first variable is *conditions*. These are the interpersonal qualities of the supervisor which include unconditional positive regard, empathetic understanding, and congruence. The authors believe that when the supervisor portrays these qualities, student clinicians become "more open to experiencing change and growth in both professional self-concept and clinical effectiveness" (Caracciolo et al., 1978, p. 287).

The second critical variable is the *process*. When supervisees reorganize their behaviors and ideas into a more "professional self-concept", they are involved in the *process*.

The final variable is *outcomes*. Here, the "perception of the ideal self becomes more realistic and the self-concept becomes more congruent with the ideal self" (Caracciolo et al., 1978, p.288). An outcome for students is self-actualization. When students reach this point, they have a more accurate self-perception of their clinical skills.

The authors stress that applying the Rogerian model to the supervisory process in speech pathology and audiology "depends on the skill of the supervisor to carry out the role of facilitator" (Caracciolo et al., 1978, p.289). Success is reached when the supervisor uses facilitative behaviors with a combination of directness and indirectness

while the supervisee develops "professional independence and accountability for one's own clinical behavior" (Caracciolo et al., 1978, p. 287).

Trigonal Model

Farmer and Farmer (1989) developed a model that organizes the supervisory process into three components: constituents, concepts, and contexts. The people who are involved in the supervisory process are the *constituents*, the ideas and knowledge of the supervisory process are the *concepts*, and the settings where supervision takes place are the *contexts*. In the theoretical orientation of this approach, Farmer and Farmer (1989) emphasize individualizing students' experiences to produce an optimal learning experience. This differential supervision utilizes both direct and indirect supervisory styles to accomplish its goal: the development of an independent clinician with self-evaluative and problem solving abilities.

Continuum of Supervision

The Clinical Supervision model is widely accepted in speech-language pathology. Anderson (1988) based her supervision continuum on the work of Cogan (1973) and Goldhammer (1969). "Joint involvement and active participation of both supervisor and supervisee in all phases of the supervisory process are the unique and critical factors" in this model (Brasseur, 1989, p.276). Anderson (1988) asserts that "supervision exists on a continuum which spans a professional career and there are styles of interaction which are appropriate to each stage of the continuum" (p.49). It is possible for a student to be "at any point on this continuum at any time during his/her career" (Brasseur, 1989, p. 277).

The *Evaluation-Feedback stage* resembles a traditional style of supervision in which the supervisor plays a dominant role. The supervisor makes all decisions and evaluates the process using a direct-evaluative style. A beginning or marginal student would likely be at this stage. Anderson (1988) states that it is important to move through this stage as quickly as possible, because supervisory feedback at this stage is

at odds with the desired outcome which is to have a self-evaluative clinician. The next stage along the continuum is the *Transitional stage*. Here, supervisees are "able to participate to varying degrees in decision making" (Brasseur, 1989, p. 278), while their supervisors use a collaborative style. A mixture of direct and indirect styles is used by the supervisor depending on the student's needs. As self-evaluative skills increase, the student moves to the final stage, *Self-supervision*. A consultative supervisory style is used at this level. This stage is reached when supervisees perceive their own clinical strengths and weaknesses and seek assistance when needed.

According to Anderson (1988), the collaborative style seems to be the appropriate style for facilitating the students' movement along the continuum. It consists of the following components: (1) understanding the process, (2) planning, (3) observing, (4) analyzing, and (5) integrating. Understanding and planning enable students to become familiar with the clinical and supervisory processes and prepare them to actively participate. During observation, the purpose is to collect objective data without evaluating, thereby minimizing supervisor bias and encouraging supervisee analysis. In the analysis phase, data on the clinical and supervisory processes are reviewed by the supervisor and supervisee. They can then evaluate the process and draw some conclusions and generalizations to be used in future sessions. During each supervisory experience, the contents of these components must be integrated. The amount of time and input spent on each component relates to the supervisee's place on the continuum. The ultimate goal of this model is to produce a self-supervising, independent professional.

Summary

Theories of the supervisory process in speech-language pathology specify a general goal of professional growth for both supervisor and supervisee. More specifically, the models described above commonly aspire to assist the supervisee in obtaining a level of independence, active participation, problem-solving and self-

evaluative skills. Keeping in mind that these models are only foundations for theoretical orientation to supervision, specific methods or approaches to differential supervision are still required. These interaction paradigms will be discussed in the next section.

Supervisory Methods in Speech-Language Pathology

Approaches to supervisory interaction take many forms, depending on factors such as supervisors' preference of style, their experience in supervision, their perceptions of the supervisory process, and supervisees' places on the continuum. However, the methods can be divided into two broad categories of approaches: dyadic and group methods. Common supervisory methods used in speech-language pathology will be discussed in this section.

Traditional Method

The traditional method is the most common method of supervision in speech-language pathology. It is categorized as dyadic supervision and is characterized by supervisor and supervisee interacting in a superior/subordinate fashion. "The supervisor observes as the clinician works with a client, then meets with the clinician, and discusses the observed behavior" (Dowling & Shank, 1981, p.52). A benefit of this method is the ability of the supervisor to focus on the individual needs of the clinician. However, limitations include a "tendency for supervisee dependence, a lack of variety in ideas and methods, and an increased risk for encouraging a superior/subordinate relationship" which does not encourage self-analysis and independent thinking (McFarlane, 1992, p.10). Empirical evidence for such limitations will be discussed in a later section.

Wholistic Supervision

This supervisory method is a team approach to diagnosis and treatment. The team, which includes the supervisor, supervisee, clients, and significant others, collaborates to establish and achieve goals (Farmer & Farmer, 1989). This method is

thought to decrease the likelihood of the supervisor and supervisee engaging in superior/subordinate roles by increasing the supervisee's participation in the supervisory process. However, these assumptions have not been tested.

In Absentia Supervision

Farmer and Farmer (1989) discuss this group method of supervision which incorporates peers rather than the clinical supervisor. The participants meet collaboratively as a group with an agenda. They videotape the meeting for the supervisor to view and make comments at a later date. An assumption is that the supervisees will increase their participation in the supervisory process in the presence of their peers and the absence of their supervisor. However, there has not been a sufficient amount of research to support this assumption.

Teaching Clinic

Another group method of supervision is Dowling's (1979) teaching clinic. It is seen as an alternative to traditional supervision in that it may facilitate supervisee involvement and stimulate self-evaluative behavior. The teaching clinic consists of six phases: (1) review of the previous teaching clinic, (2) planning, (3) observation, (4) critique preparation, (5) critique and strategy development, and (6) clinic review. In this approach, a demonstration clinician brings a videotape of a therapy session to the peer group for discussion. The group discusses and critiques the therapy session and generates strategies for future sessions (Dowling & Shank, 1981). Many studies of this supervisory method have been conducted and will be reviewed in a later section.

Peer Supervision

Use of peer supervisors is a method designed to encourage supervisee participation (Anderson, 1988; Dowling, 1979; Farmer & Farmer, 1989; McFarlane & Hagler, 1992a, 1992b). There is an assumption that peers will collaborate rather than evaluate and direct each other. Presumably, this supervisory style encourages supervisees to be more self-analytical, a skill required of independently functioning

professionals. Farmer and Farmer (1989) cite advantages of peer supervision including increased comfort and empathy between participants. This relaxed atmosphere is supposed to be conducive to increased self-analysis and self-directedness. Another advantage is that, as the students observe and give feedback to one another collaboratively, they develop their observational and self-evaluative skills which become valuable to them as working professionals. A study on this type of interaction will be reviewed in a later section.

Collaborative Treatment Teams

The final supervisory method to be discussed combines aspects of the previously described group methods. It was implemented at the University of Alberta in the Spring of 1993 and incorporated treatment teams as the basis for in-house placements. As described by McFarlane (1992), the collaborative treatment team consists of two student clinicians, two peer observers, at least one parent or principal caregiver, and a supervisor. The two student clinicians are jointly and equally responsible for the full range of diagnostic, counseling and therapeutic services of their clients. Members of the observation pair act as observers and consultants to the treatment pair. During this observational segment, the students practice supervisory skills such as objective observation and data collection of client and clinician behaviors. Student clinicians receive individual conference time with a clinical supervisor as well as conference time that includes the other student member and the observational pair. As indicated previously, models of the supervisory process emphasize the importance of active supervisee participation and developing problem-solving and analytical skills. This supervisory approach is advantageous, because it encourages the development of these skills. The students gain experience in team treatment and in objective observation. They are able to practice delivering feedback, self-analyzing and joint problem-solving.

Summary

A brief review of supervisory methods has been given. The traditional, dyadic method, which is most commonly used, does not necessarily encourage the development of self-analytical, independent clinicians. Rather, when characterized by direct, evaluative interaction on the part of the supervisor, it theoretically encourages supervisee dependence in a superior-subordinate relationship. Group supervisory methods were also reviewed. They included wholistic supervision, in absentia supervision, the teaching clinic, peer supervision, and collaborative team treatment. These alternative methods are believed to encourage active supervisee participation and independence, goals in keeping with those of the continuum of supervision model (Anderson, 1988). Although the continuum model is becoming widely accepted, there is no empirical support for its use. There needs to be considerable investigation into the effectiveness of the supervisory process as a whole and the relative merits of the various methods described above. Many studies on conference interactions exist in our field. That literature will be reviewed in the next section.

Studies of the Supervisory Process

Assuming an inherent importance and necessity for the supervisory conference, many studies have focussed on the conference as an integral part of the process. Investigations have looked at perceptions of the participants, the interpersonal relationship between supervisor and supervisee, contents of the supervisory conference, supervisory styles, and effectiveness components.

Importance of supervision

We can assume that supervision is important and beneficial for the student clinician and for that matter, the supervisor. To provide evidence for this point, Nelson (1974) asked whether supervision makes a difference in the clinical competencies of students. Beginning clinicians were randomly assigned to receive individual supervision, group supervision, or no direct supervisory feedback. Results indicated

that supervision made a difference. Any direct supervisory feedback was better than none at all. More specifically, individual supervision was significantly better than group supervision and group supervision was better than no supervision. Students who received supervisory feedback demonstrated better goal-directed behavior, treatment procedures and behavior management skills.

Goodwin (1977) studied the results of a 12-minute conference, a 25-minute conference, and no conference on therapy behavior of student clinicians. Trends in the data indicated that the therapy of students with no supervisory conference was characterized by increased silence, unrelated conversations and a decrease in feedback, demonstration cues and models. Those results supported the effectiveness, and therefore importance, of the supervisory conference.

Perceptions of the supervisory process

A first step in studying supervision is "to isolate those factors perceived to be indicators of effective supervisory interactions" (Smith & Anderson, 1982). It is thought that, if supervisors and supervisees have differing perceptions of the supervisory process, productivity and communication could be adversely affected.

Brasseur and Anderson (1983) investigated supervisors' and supervisees' abilities to perceive direct and indirect styles. Data indicated that judges with different experience levels (undergraduates, graduates, & supervisors) were consistent in their perceptions and discrimination of three supervisory styles (direct, indirect, & direct/indirect). This consistency among judges resulted in the conclusion that, in the future, supervisees' evaluations of supervisory behavior should be considered valid.

Dowling and Wittkopp (1982) studied students' perceived supervisory needs. As one would expect, the authors found that supervisees' needs were related to their level of experience. This supported the need for differential supervision.

Oratio, Sugarman, and Prass (1981) analyzed supervisees' perceptions of supervisory effectiveness. Their findings revealed that perception of effectiveness was

related to interpersonal factors, specifically supervisor respect and empathy for, and appropriate confrontation of, the student. Therefore, it seems that interpersonal variables play a significant part in supervisees' perceptions of supervisory effectiveness.

Interpersonal relationships

McCrea (1980) studied supervisees' ability to self-analyze when supervisors displayed facilitative behaviors such as respect, empathetic understanding, facilitative genuineness, and concreteness. It was concluded that supervisees did not engage in or develop self-analytic behaviors as a result of supervisors' behaviors.

Pickering (1984) studied perceived interpersonal relationships between the supervisor and student and between the student and client. When the clinician interacted with the client, responses were not at the affective level, and there was little self-disclosure by the clinician. In conference interactions, supervisees focused on objective issues rather than their subjective feelings. Similarly, supervisors tended to be instructional and objective. It seems that facilitative interpersonal conversations rarely take place in the supervisory conference. The next section will discuss other aspects of interactions in supervisory conferences.

The supervisory conference

To learn more about the supervisory process, researchers have investigated the typical supervisory conference and the participants' roles in the conference (Hatten, 1966; Culatta & Seltzer, 1976, 1977; McCrea, 1980; Dowling & Shank, 1981; Irwin, 1981; Roberts & Smith, 1982; Tufts, 1984). Certain components of the supervisory process considered to be important to cultivating a students' independence were not found in the conference. Studies reported that a typical supervision conference resembled the traditional method and was direct-evaluative. The supervisor assumed the dominant role by talking the most, initiating and structuring interactions. The supervisee was passive and reacted and responded to the supervisor's statements. Emphasis tended to be on the teaching-therapy process or the client, whereas little

discussion took place about the supervisee, supervisor or the supervisory process (Anderson, 1988; Culatta & Seltzer, 1976, 1977; Hatten, 1966; Irwin, 1981; McCrea, 1980; Roberts & Smith, 1982; Tufts, 1984; Underwood, 1973). Research describing supervisory conferences also revealed that the models discussed previously and believed by most to be theoretically sound, were not being implemented in current supervisory practices (Brasseur & Anderson, 1983; Caracciolo, Rigrodsky & Morrison, 1978; Culatta & Seltzer, 1976; Dowling & Wittkopp, 1982; Hatten, 1966; McCrea, 1980; Pickering, 1984; Tufts, 1984; Underwood, 1973).

Supervisory styles

Studies have also attempted to determine if one supervisory style or type of conference is more effective than another in developing self-evaluative behaviors and overall clinical growth in supervisees. Two examples of this are the teaching clinic method and peer supervision.

Teaching Clinic

Dowling's (1979) adaptation of the teaching clinic has been investigated in great detail. The format of the clinic was described in an earlier section. To review, the teaching clinic is a group supervision method in which a demonstration clinician brings a videotape of a therapy session for review and discussion with the group (i.e. supervisor, demonstration clinician, peers, & a group monitor).

Two studies (Dowling & Shank, 1981; Dowling, 1983) investigated the quality and quantity of talk in the teaching clinic conference compared to the traditional supervisory method. Evidence revealed no differences in talk behavior. Participation by the demonstration clinician was minimal.

These studies seemed to indicate that changing the format of the traditional conference was not enough to encourage active participation by the supervisee. Instead, the supervisee was passive and had few initiations in the conference.

Peer Supervision

As mentioned above, peers in the teaching clinic did not have the expected effects on supervisee participation. This may have been due to the fact that the clinical supervisor was still present in the conference.

An investigation by McFarlane and Hagler (1992a) looked at the interaction between student clinicians and peer supervisors in a dyadic conference. Using the interaction analysis tool MOSAICS (Smith, 1978), the authors compared initiatory/reflexive (I/R) ratios of supervisors and supervisees in two supervisory conditions: traditional supervision and peer supervision. The data revealed that peer supervisors were less initiatory than clinical supervisors. However, when the authors compared the mean supervisee I/R ratios, it was found that they were almost identical under both conditions. It was noted that even though peer supervisors followed the continuum of supervision model, "students were not more initiatory in conference with a peer" (McFarlane & Hagler, 1992a, p.6). In addition, peers seemed to "enter each situation with a predisposition to behave in a certain way" (McFarlane & Hagler, 1992a, p.7). This was noted when the data indicated that the peer supervisors' mean I/R ratio was significantly higher than the mean I/R ratio of the supervisees'. Emulating the traditional supervisory interaction, the peer supervisors demonstrated a variety of initiatory and reflexive behaviors characterized by asking pertinent questions and engaging in analysis while peer supervisees were passive, reflexive, and not self-analytical.

McFarlane and Hagler (1992a) also looked at the effects of an agenda on the peer supervisory conference. Results indicated that the agenda appeared to be a catalyst for change in the supervisees' behavior. The supervisees became more initiatory while the peer supervisors decreased their initiations.

The last component of the study was to investigate the effects of role expectations on conference behavior during peer supervision. It was possible that the

students were passively participating in the conferences, because they had preconceived perceptions of conference roles. Therefore, the authors changed the labels of the participants from "student clinicians" and "peer supervisors" to "team leaders" and "observers" respectively. The results of this change indicated that there was, indeed, a preconceived role tied to participants' labels. Students were more initiatory when they were called "team leaders" than when they were called "student clinicians". The label affected only student clinicians' initiatory behavior, not that of peer supervisors.

Supervisory Effectiveness

There are few empirical studies in speech-language pathology that document supervisory effectiveness. Instead, components of effective supervision are based on participants' perceptions and opinions and promulgated from theoretical perspectives. There was little evidence to counter the claim made by ASHA (1978) that there were no data to indicate that supervision made a difference in the effectiveness of clinicians. Since then, few studies have attempted to address this issue.

Gillam, Strike Roussos and Anderson (1990) studied the efficacy of the collegial model of supervision. The authors questioned whether supervisees could alter their clinical behaviors based on the consequence of a joint data-analysis method of supervision. A single subject design was used. Three supervisee behaviors were targeted: clinician explanations, informative feedback and directive responses to neutral/social utterances. Results indicated that "clinical performance of the target behaviors improved significantly after the behaviors became the target of supervision" (Gillam et al., 1990, p.736). The study validated the effectiveness of joint data-analysis supervision.

It is known that most of supervisory conference time is spent discussing client behaviors, and not enough time is spent planning, designing strategies or problem solving (Tufts, 1984). Goldhammer et al. (1980) discussed the importance of planning

and explicit contracts in supervision. The contract assures that a supervisee's strengths and needs are addressed and objectively assesses goal-directed progress.

Shapiro and Anderson (1989) realized the need for empirically establishing the effectiveness of contracts. They used "a written agreement, essentially a form of a contract, to determine the effects that planning and documenting commitments [had] on the behaviors of supervisees" (p. 550). They asserted that the planning component of the supervisory process could identify critical factors that may lead to effective clinician growth. If students carried out the commitments made during supervisory conferences, Shapiro & Anderson (1989) considered this to be a positive and direct result of the supervisory interaction. For the study, effects of two types of commitments as well as order effects were considered. Results indicated that supervisees' followed through with their commitments when written agreement was introduced early into the supervisory conferences and then faded. Written agreement was judged to be more beneficial for beginning clinicians than for experienced clinicians. Most importantly, it was demonstrated that specific behaviors of supervisees could be followed and measured over time and that certain clinician behaviors occurred as a direct result of commitments made during conferences with a supervisor.

Summary

The studies reviewed in this section suggest that supervision is an effective component in speech-language pathology training. Understanding and planning for the supervisory process are important components in the continuum model of supervision (Anderson, 1988).

Studies of the style and type of conference indicate that supervisee participation in the teaching clinic and peer supervision studies remained low. Student clinicians seemed unwilling to accept responsibility for setting the content or tone of the conference, even in the non-directive presence of a peer (McFarlane, 1992). Thus far, changing the conference to a less structured, peer-oriented format has had minimal

effects. Differential supervision does not occur in traditional supervision in which the supervisee tends to be passive.

To promote positive change in the supervisory process, direct intervention with the supervisee has been shown to be effective under certain conditions. McFarlane and Hagler (1992a, 1992b) achieved positive results with semantic role manipulation and the supervisee-prepared agenda. Shapiro and Anderson (1989) also obtained positive results when they studied behavior change in student clinicians as a result of using formal contracts. Intervention with the supervisee to produce changes in conference interaction seems to be promising. Studies have demonstrated that intervening through strategic planning, for the client *and* for the supervisory process, is important (McFarlane & Hagler, 1992a, 1992b; Shapiro & Anderson, 1989). A single study with four proven effective forms of intervention is needed. Such a study would combine peer supervision, agenda use, and planning and documenting commitments to assess their impact on student behavior as an index of conference effectiveness.

Purpose

This study was a partial replication of Shapiro & Anderson's (1989) study but added the dimension of supervisor presence within a collaborative team approach. It has met the need for more empirical data on the effectiveness of supervision and has directly intervened with the supervisee. Its purpose was to determine whether the number of commitments made and proportion completed by supervisees differed significantly depending on the presence/absence of the clinical supervisor during the supervisory conference, which routinely included peer observers. The following research questions were addressed:

Commitments Made (during the supervisory conference)

1. Will certain types of commitments be made significantly more often than other types?

2. What is the effect of the supervisor's presence on the number of commitments made?
3. Do commitment type and supervisor presence interact to affect the number of commitments made?

Commitment Follow-Through (in treatment sessions and/or supervisory conferences)

4. Is follow-through behavior greater for some types of commitments than it is for others?
5. What is the effect of supervisor's presence on follow-through behavior?
6. Do commitment type and supervisor presence interact to affect follow-through behavior?

Definitions of Terms

This study has defined the following terms in this way:

- *Perceived effectiveness:* Opinions of participants in the supervisory process as to the general usefulness of different components of the supervisory process.
- *Actual effectiveness:* The presence or absence of documented, measurable, clinical skills and abilities resulting from supervisory interaction.
- *Commitment made:* A specific plan for action to be taken by the supervisee, whether the plan was supervisor, peer observer, or supervisee generated.
- *Commitment completed:* A specific plan for action to be taken by the supervisee, whether the plan was supervisor, peer observer, or supervisee generated, and *actually followed-through on*.
- *Follow-Through behavior:* A descriptive measure derived by dividing the number of commitments completed by the number of commitments made. This resulted in a proportion.

CHAPTER 3

METHODOLOGY

Subjects

All subjects in this study were volunteer participants in their first year of a graduate program in speech-language pathology. Student clinicians enrolled in their first clinical placement held in Corbett Clinic at the University of Alberta during the period of May to August 1993 were eligible to participate. Twenty-nine students and three supervisors agreed to participate. Each clinical supervisor had worked professionally for at least one year. The supervisors' clinical experience ranged from 11 to 15 years ($\underline{M}$ = 13.0) and they had supervised between 25 and 100 students ($\underline{M}$ = 41.7). Two supervisors received previous training in supervision in the form of graduate courses and workshops and one supervisor conducted a master's thesis in the area of clinical education and research.

Student clinicians ranged in age from 24 to 45 years ($\underline{M}$ = 28.7). All students had a four-year baccalaureate degree or the equivalent. As first-year graduate students, they did not have any clinical treatment hours but had courses in the following areas: research methodology, anatomy, speech and hearing science, child language development, audiology, motor speech and phonology disorders, child language disorders, and aphasia.

The students were divided into direct treatment pairs and were jointly responsible for diagnosing, counselling and providing therapeutic services. In addition, each direct treatment pair was assigned an observational pair (consulting clinicians) who were to objectively observe, deliver feedback, joint problem solve and consult with the treatment pair.

Completion of the documents necessary for this study was already a part of the students' routine responsibilities in Corbett Clinic. However, data were used only for research purposes based on students' and supervisors' independent, mutual consent.

Materials

Three instruments were adapted from Shapiro and Anderson's (1989) study. The direct treatment pair's commitments were documented on the Commitment Documentation Form (Appendix A). The implementation of their commitments was documented on the Follow-Through Evaluation Form (Appendix B), and the commitments were classified according to the Commitment Classification System (Appendix C). Examples of a completed Commitment Documentation Form (Appendix D) and a Follow-Through Evaluation Form (Appendix E) were given to supervisees to aid in effective use.

Procedure

During the period of June to July 1993, the students' responsibilities in Corbett Clinic included completion of the Commitment Documentation Form and the Follow-Through Evaluation Form. The MSLP program had not been implemented in an organized manner anywhere previously. Therefore, tracking commitments made and commitments completed was done as part of its clinical program evaluation. During a concurrent classroom seminar, the students were notified of this responsibility and were asked for their consent to use these data for research purposes. Informed consent documents (Appendix F) and instructions (Appendices G, H, I, J, & K) were distributed. If students did not wish to participate, they were asked to return the unused materials to the investigator.

To allow for supervisory and clinical relationships to become established, data collection began after the seventh week of the placement and continued until the tenth week of the placement. Formal conferences between the direct treatment pair and the consulting clinicians with the supervisor absent (condition SA) were held twice weekly,

while conferences between the direct treatment pair, consulting clinicians, with the supervisor present (condition SP) were held one time per week. Commitments not completed for reasons beyond the control of the participating supervisor and supervisees (eg. cancellation of the therapy session or supervisory conference due to illness, closing of clinical facilities, etc.) were deleted and proportions of commitments or follow-through behaviors were adjusted.

To control for order effects, half of the treatment and observational pairs were assigned condition SP first, while half of the treatment and observational pairs were assigned condition SA first. Procedures were the same for each condition, only the titles of the instructions differed. For example, participants who received Appendices H, I, J, and K (Supervisor Present), received the same forms again, except that they were titled 'Supervisor Absent' and vice versa.

Supervisor Present (SP)

During one week, the participants (direct treatment pair, consulting clinicians, & supervisor) were instructed to conduct weekly conferences as they generally did, with the following additional conditions: (1) they were asked to audiotape the conference, and (2) they were asked to complete the Commitment Documentation Form (CDF) at the end of the conference. The CDF asked users to agree to (a) one or more commitments which were to be completed within one week of the conference, and (b) the specific, realistic, observable behaviors supervisees would demonstrate to indicate completion of each commitment. All participants signed the completed form at the bottom, indicating agreement.

In the following week, the consulting clinicians and supervisors were asked to record, on the Follow Through Evaluation Form, all commitments made by direct treatment clinicians and describe as accurately and completely as possible, the specific behaviors clinicians showed to demonstrate either completion or lack of completion of

each commitment. All participants signed the completed form at the bottom, indicating agreement.

Supervisor Absent (SA)

During one week, the participants (direct treatment pair & consulting clinicians) were asked to conduct two conferences per week as they generally did, with the following additional conditions: (1) they were asked to audiotape the conference, and (2) they were asked to complete the Commitment Documentation Form (CDF) at the end of the conference. Participants signed the completed form at the bottom, indicating agreement.

In the following week, the consulting clinicians were asked to record on the Follow Through Evaluation Form, all commitments made by direct clinicians and describe as accurately and completely as possible, the specific behaviors clinicians showed to demonstrate either the completion or lack of completion of each commitment. All participants signed the completed form at the bottom, indicating agreement.

The participants were asked to return their materials to the principal investigator. When the information was received, the principal investigator categorized the individual commitments from the Follow Through Evaluation Forms using the classification system adapted from Shapiro & Anderson (1989). The categories and descriptors from that system are listed below. A more detailed list can be found in Appendix E

Type I: Clinical Procedures - Commitments that address the implementation and/or change of a therapy or diagnostic technique. Client-related activities are of major focus.

Type II: Clinical Process Administration - Commitments that address the planning, analysis, or evaluation phases of the clinical process. Focus is client-related.

Type III: ***Supervisory Procedures*** - Commitments that address implementation and/or change of a supervisee's behavior in therapy or the supervisory conference. Focus is clinician related.

Type IV: ***Supervisory Process Administration*** - Commitments that address the planning, analysis, or evaluation phases of the supervisory process. Focus is clinician skill development.

Type V: ***Academic Information/Teaching Function*** - Commitments designed to gain information of an academic (i.e. clinical or supervisory) nature.

Validity

Commitment Documentation Form

Both SP and SA supervisory conferences were routinely audiotaped. The audiotapes and their corresponding Commitment Documentation Forms (CDF) were coded for later matching purposes. The investigator randomly selected and listened to twenty percent of the recordings and compared the commitments made on tape to those made on the CDF. One-to-one correspondence (i.e. audio-to-written) was 100%. Therefore, the Commitment Documentation Form was considered to be a valid instrument for documenting commitments made.

Follow-Through Evaluation Form

Three or more signatures from members of the treatment team (the supervisor, either or both consulting clinicians and/or direct clinician #2) on the Follow-Through Evaluation Form (FEF) were taken as evidence of actual follow-through and therefore validity of the FEF.

Reliability

Commitment Classification

Following a brief training period, the investigator and another speech-language pathologist used the Commitment Classification System to classify and count each

commitment made on the CDF, for each treatment team. Point-to-point agreement was 96% across the five types of commitments from the Commitment Classification System.

To determine intrarater reliability, the commitments were re-classified and re-counted two weeks later by the investigator. Point-to-point agreement was 95%. Computer entry of all data was checked for accuracy.

Data Analysis

Independent Variables

The independent variables were *Supervisor Presence*, having two levels: (1) Supervisor Present (SP) for supervisory conference and, (2) Supervisor Absent (SA) for supervisory conference; and *Commitment Type*, having five levels (Types I-V) described earlier.

Dependent Variables

There were two dependent variables: *Commitments Made*, expressed as a frequency count of the number of commitments made during the supervisory conference, and *Follow-Through Behavior*, expressed as a percentage derived from the number of commitments completed divided by the number of commitments made.

Research Design

Originally, a 2x5 repeated measures design was planned for this investigation. However, after classifying the commitments, it was noted that there were too few occurrences of commitment types IV and V to be used in the analysis. Types IV and V were made a total of only four and three times respectively, with most subjects making no Type IV or V commitments at all. Therefore, these two types were deleted from the analysis. This resulted in a 2x3 completely within-subjects experimental design, that is, with repeated measures on both factors.

Questions 1-3, which related to the effect of Commitment Type and Supervisor Presence on commitments made, were answered using an analysis of variance (ANOVA) with Commitments Made as the dependent variable. Questions 4-6, which

related to the effect of Commitment Type and Supervisor Presence on how often students followed through on their commitments, were answered using tests for a significant difference between proportions (Bruning & Kintz, 1987) with Follow-Through Behavior being derived by dividing the number of commitments completed by the number of commitments made. Derivation of follow-through in this way resulted in many occurrences of empty data cells in a repeated measures design. Thus, a repeated measures analysis of variance could not be applied to the data.

In theory, any level of significance can be used to determine the probability that results obtained were not due to chance. Nevertheless, the most common levels used are .05 and .01 (Ventry & Schiavetti, 1980). Huberty (1987) stated that "few researchers believe that any alpha level is sacred" (p. 5). In fact, different alpha levels tend to be used depending on whether the study at hand was exploratory, conducted multiple comparisons on the same subjects, or had been heavily studied previously (Huberty, 1987; Ventry & Schiavetti, 1980). Huberty (1987) suggested that exploratory research or studies that conduct multiple statistical tests, use alpha levels ranging as high as .10 to .20. This argument seems credible, since one would not want to "discard" results from an exploratory study simply because they did not meet the more stringent levels of significance. Traditionally, when conducting multiple comparisons on the same subjects, a more stringent level of significance is established in order to compensate for an increased experiment-wise error rate. Since this study was exploratory in nature and conducted multiple comparisons on the same subjects, the error rate was calculated as: Error rate = .20 (Huberty, 1987) / 8 (number of comparisons). That is to say, one analysis of variance and seven tests for significant differences between proportions were used to analyze the data. Thus, there were a total of eight analyses, each at the .20 level of significance. This correction resulted in a critical alpha level of 0.025, which was used as the criterion for a significant difference in all analyses.

All of the means, standard deviations, and resulting *F* ratios were computed using the STATVIEW program (Haycock, Gagnon, Finzer, & Soper, 1992). Paired comparisons of the means were carried out using a weighted contrasts facility in the statistical software package SuperANOVA (Gagnon et al., 1989).

CHAPTER 4

RESULTS

Descriptive and comparative analyses were conducted on the number and types of commitments made and on follow-through behavior in the presence and absence of a clinical supervisor. Following are a descriptive overview and the results of comparative statistics that provide answers to the six research questions.

Descriptive Statistics

Frequency counts for the types of commitments made and completed are listed in Table 1.

Table 1. Number of commitments made and completed

Commitment Type	Commitments Made	Commitments Completed
Type I	116	110
Type II	59	54
Type III	14	12
Type IV	4	3
Type V	3	3
TOTAL	196	182

After classifying the commitments, it was noted that there were too few of commitment types IV and V to be used in the analysis. Types IV and V were only made four and three times respectively and completed three times each and were therefore deleted from this analysis. To have analyzed commitments that were made fewer than five times in total would have yielded significant differences that were spurious. In other words, mostly zeros averaged with a few ones would have resulted in a low average with a low variance. This would have yielded a significant difference between these variables and the others when, in fact, these variables did not really vary (i.e. they were

not variables; they were, for all practical purposes, zero "constants"). Commitments that were not completed for reasons beyond the control of the participating supervisor and supervisee (e.g. because of a cancelled therapy session) were also deleted. Only Type I commitments were affected by such circumstances with 116 Commitments Made being reduced to 113 and 110 Commitments Completed being reduced to 108.

To summarize, the type and number of commitments made and completed were entered into the analysis with the following adjusted totals for the three types that occurred often enough to be compared:

Table 2. Number of commitments made and completed (Revised)

Commitment Type	Commitments Made	Commitments Completed
Type I	113	108
Type II	59	54
Type III	14	12
TOTAL	186	174

Descriptive data from one session per client for each condition (Supervisor Present & Supervisor Absent) for 16 pairs of participants, totalling fifty-eight supervisory conferences, were calculated and are displayed in Tables 3-8.

Commitments Made

Table 3. Descriptive statistics for number of commitments made/session by type

Commitment Type	Mean	Standard Deviation
Type I	2.093	1.391
Type II	1.093	0.875
Type III	0.259	0.705

Table 4. Descriptive statistics for number of commitments made/session with supervisor present and supervisor absent

Supervisor Presence	Mean	Standard Deviation
Present	1.173	1.292
Absent	1.123	1.259

Table 5. Descriptive statistics for number of commitments made/session: type by supervisor presence

	TYPE I		TYPE II		TYPE III	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Present	2.148	1.433	1.111	0.847	0.259	0.712
Absent	2.037	1.372	1.074	0.917	0.259	0.712

Follow-Through Behavior

Table 6. Descriptive statistics for amount of follow-through (proportion of commitments completed) by type

Commitment Type	Mean Proportion	Standard Deviation
Type I	0.9506	0.168
Type II	0.9167	0.245
Type III	0.8333	0.356

Table 7. Descriptive statistics for amount of follow-through (proportion of commitments completed) with supervisor present/supervisor absent

Supervisor Presence	Mean Proportion	Standard Deviation
Present	0.9870	0.086
Absent	0.8134	0.296

Table 8. Descriptive statistics for amount of follow-through (proportion of commitments completed): type by supervisor presence

	TYPE I		TYPE II		TYPE III	
	Mean Proportion	Standard Deviation	Mean Proportion	Standard Deviation	Mean Proportion	Standard Deviation
Present	0.9861	0.068	0.9750	0.112	1.0000	0.000
Absent	0.9152	0.229	0.8583	0.321	0.6667	0.471

Comparative Statistics

Commitments Made

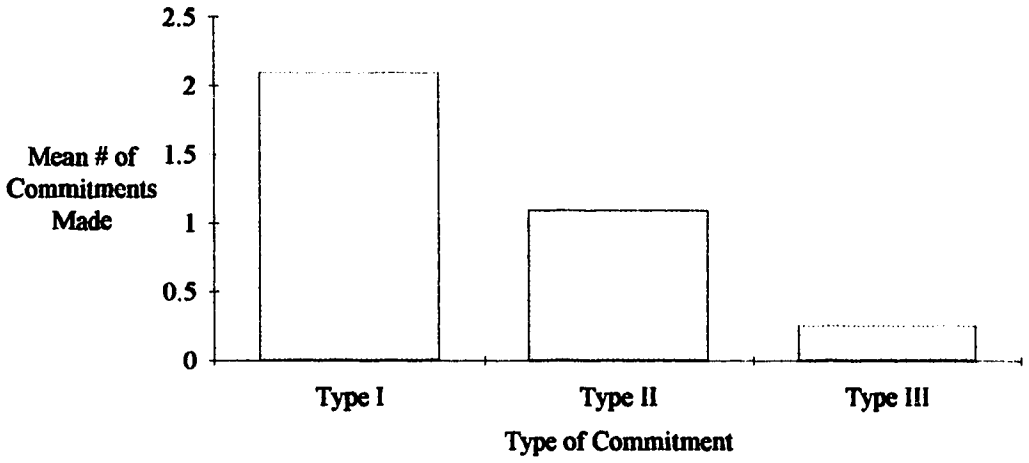
A 2 x 3 repeated measures analysis of variance (ANOVA) with Commitments Made as the dependent variable was used to answer research questions one through three. A significant main effect, F (2,52) = 22.677, p=0.0001 (Table 9), was revealed for Commitment Type, indicating that the mean number of commitments made differed by type. The main effect for Type (of commitment made) is illustrated in Figure 1.

Table 9. 2 x 3 ANOVA -repeated measures for the commitments made (Types I-III)

Source	df	Sum of Squares	Mean Square	F-value	p value
Subject	26	10.111	0.389		
Type	2	91.000	45.500	22.677	0.0001*
Type x Subject	52	104.333	2.006		
Supervisor Presence	1	0.099	0.099	0.461	0.5031
Supervisor Presence	26	5.568	0.214		
Type x Supervisor Presence	2	0.086	0.043	0.046	0.9554
Type x Supervisor Presence	52	49.247	0.947		

* denotes a significant difference

Figure 1. Mean number of three types of commitments made



Since the main effect for Type did not reveal which of its three levels differed from one another, paired comparisons were made. The means for Type were compared using weighted contrasts. Comparison of Type I commitments made (Clinical Procedures), M=2.093, to Type II commitments made (Clinical Process Administration), M=1.093, indicated a significant difference, F=28.509, p = .0001. A significant difference was also noted through a comparison of Type II commitments made, M=1.093, to Type III commitments made (Supervisory Procedures), M=0.259, F=19.798, p= .0001. A weighted contrast was not run to test for a difference between Type I and Type III commitments, because they were the most disparate means in the significant main effect.

Inspection of Table 9 reveals that no main effect was found for Supervisor Presence, F (1, 26) = 0.461, p=0.5031, (Figure 2) nor was an interaction found between Supervisor Presence and Type of commitment made, F (2, 52) = 0.046, p=0.9554 (Figure 3).

Follow-Through Behavior

Seven Tests for Significant Differences Between Proportions (Bruning & Kintz, 1987), with Follow-Through as the dependent variable, were used to answer research questions four through six. The mean proportions of follow-through behavior for Type were compared but no significant differences were found (Table 10) (Figure 4). The comparisons were as follows: *(1)* Type I mean proportion (Clinical Procedures), M = 0.9506, to Type II mean proportion (Clinical Process Administration), M = 0.9167 with z = 0.501, p = 0.3085; *(2)* Type I mean proportion with Type III mean proportion (Supervisory Procedures), M = 0.8333 with z = 1.388, p = 0.0838; and *(3)* Type II mean proportion with Type III mean proportion with z = 0.926, p = 0.1788.

Figure 2. Mean Number of Commitments Made Under Two Conditions of Supervisor Presence

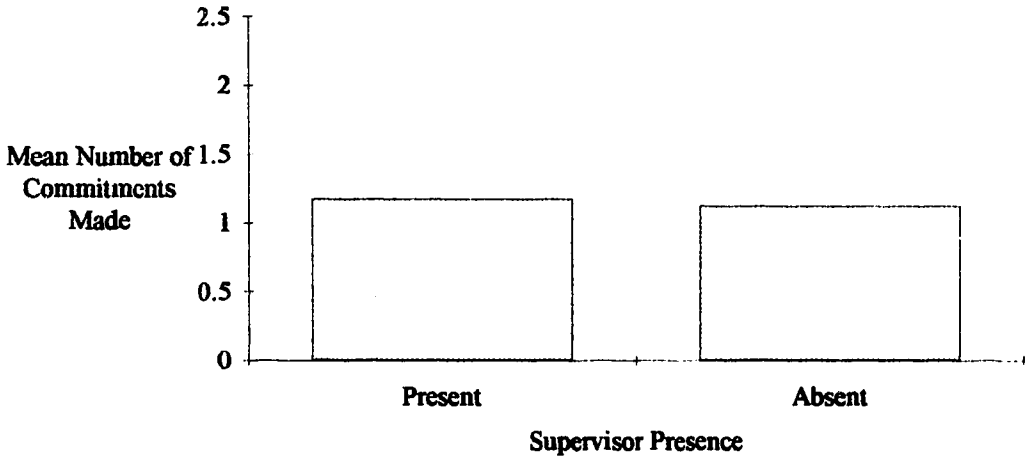


Figure 3. Effect of Supervisor Presence on Type of Commitment Made

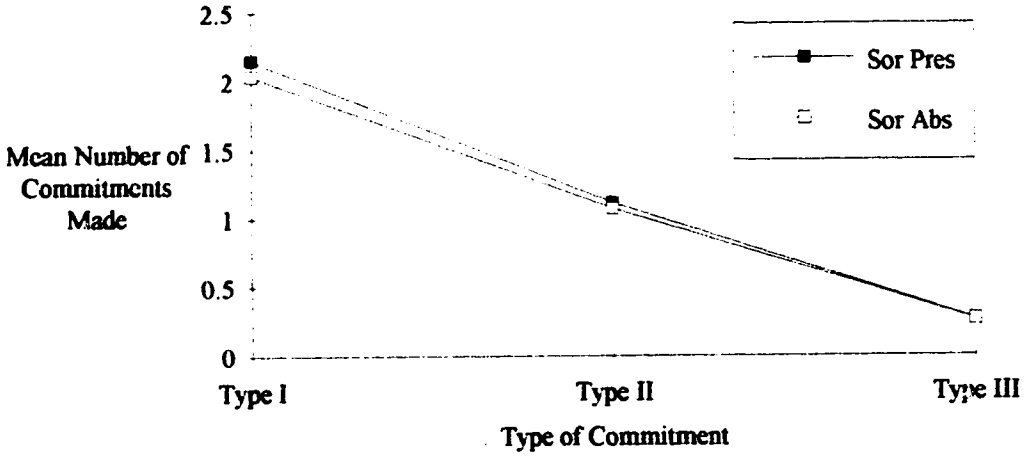


Figure 4. Mean Percentage of Follow-Through on Three Types of Commitments

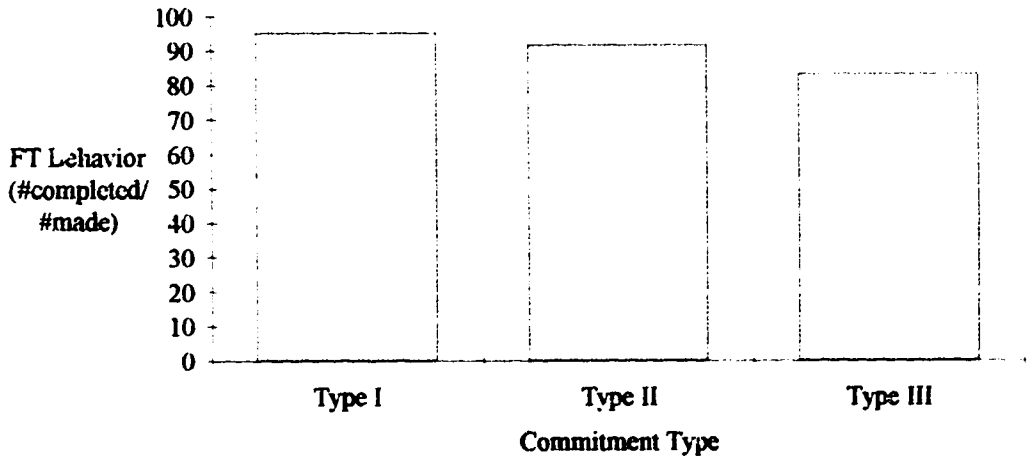


Table 10. Test for significant difference between mean proportions of follow-through on Type I, Type II and Type III commitments

Commitment Type	Number of Subjects	Mean Proportion	z Value	p Value
Type I	27	.9506	0.501	0.3085
Type II	27	.9167		
Type I	27	.9506	1.388	0.0838
Type III	27	.8333		
Type II	27	.9167	0.926	0.1788
Type III	27	.8333		

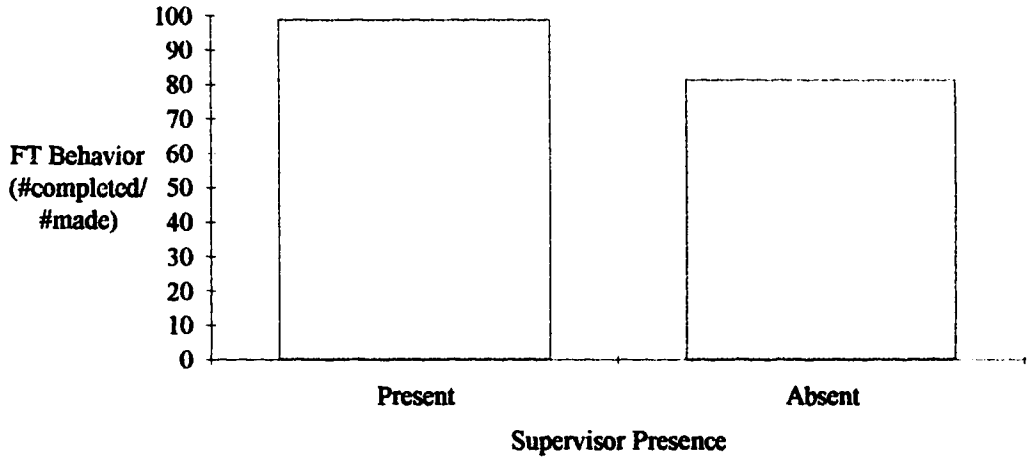
A significant difference was found between the two levels of Supervisor Presence. The Supervisor Present condition, $\underline{M} = 0.98$ was characterized by a higher proportion of follow through behavior, with $z = 2.129$, $p = 0.017$, than the Supervisor Absent condition, $\underline{M} = 0.8134$ (Table 11). This indicated that follow-through was better when supervisors were present than it was when they were absent. Figure 5 illustrates this difference in follow through behavior under the two conditions of supervisor presence.

Table 11. Test for significant difference between mean proportions of follow-through for supervisor present and supervisor absent

	Number of Subjects	Mean Proportion	z Value	p Value
Present	27	.9870	2.129	0.017*
Absent	27	.8134		

* denotes a significant difference

Figure 5. Mean Percentage of Follow-Through Under Two Conditions of Supervisor Presence



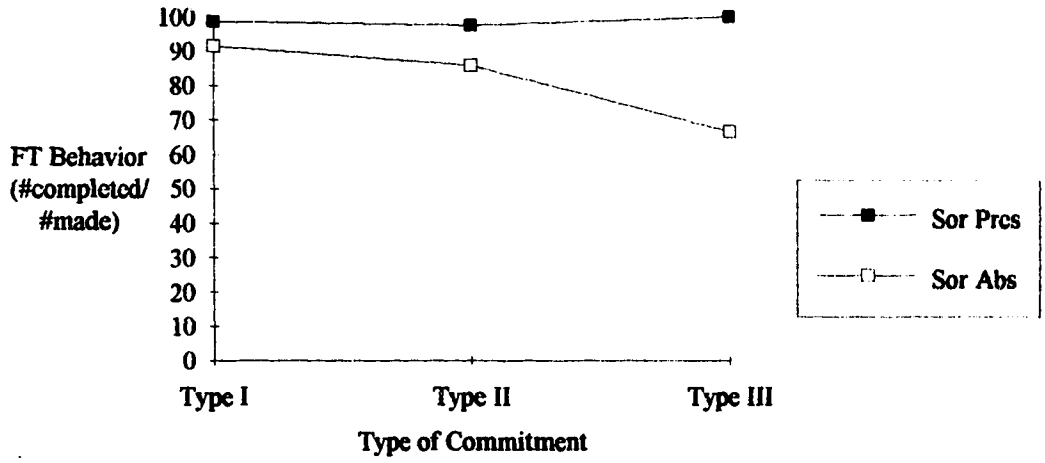
Inspection of Table 12 reveals that a significant interaction was evident between Supervisor Presence and Commitment Type (Figure 6). Follow-through was significantly higher, $z = 3.286$, $p = 0.00069$, for Type III commitments in the Supervisor Present condition ($\underline{M} = 1.000$) than in the Supervisor Absent condition ($\underline{M} = 0.667$).

Table 12. Test for significant difference between mean proportions of follow-through for type x supervisor presence

Commitment Type	Number of Subjects	Mean Proportion	z Value	p Value
Type I-Present	27	.9861		
			1 204	0.1151
Type I-Absent	27	.9152		
Type II-Present	27	.9750		
			1.551	0.0606
Type II-Absent	27	.8583		
Type III-Present	27	1.000		
			3.286	0.00069*
Type III Absent	27	.6667		

* denotes a significant difference

Figure 6. Effect of Supervisor Presence on Follow-Through Behavior for Three Types of Commitments



Summary of Relevant Observations

Commitments Made

Analyses of the data indicated that there tended to be differences among the mean numbers of the various types of commitments made, but this did not depend on the supervisor's presence in the supervisory conference. Type I commitments (Clinical Procedures) were made significantly more often than Type II (Clinical Process Administration) and Type III (Supervisory Procedures) commitments respectively, and Type II commitments were made significantly more often than Type III commitments. The supervisors' presence did not affect the number of commitments made overall. No interaction between Commitment Type and Supervisor Presence was evident.

Follow-Through Behavior

Analyses of the mean proportions for Type indicated that follow-through behavior was not better for some types of commitments than it was for others. The supervisors' presence had an effect on supervisees' follow-through behavior. More commitments were carried out when they were made in the presence of a supervisor. An interaction between Supervisor Presence and Follow-Through Behavior was evident.

These findings regarding commitments made and follow-through behavior as they relate to supervisor presence, are reviewed in the discussion section following.

CHAPTER 5

DISCUSSION

This study replicated, in part, Shapiro and Anderson's (1989) study, which utilized a similar methodology to trace specific behaviors of the supervisee from the supervisory conference to later activities. To the extent that the numbers of commitments made and carried out can be considered indices of conference content, from which effectiveness can be inferred, researchers can determine the number and type of commitments made and carried out and draw conclusions regarding the supervisee's clinical behavior as an outgrowth of the supervisory conference. If more commitments are made and follow-through behavior is higher when the supervisor is present, the supervisor's involvement can be assumed to be important. The current study added a Supervisor Absent condition to determine whether the supervisor's presence really made a difference in the supervisees' clinical behaviors. Current findings were that follow-through behavior was higher when supervisors were present. However, it is worth remembering that just because fewer of the commitments made in the Supervisor Absent condition were carried out, does not mean that these conferences were not effective. Even with the supervisor absent, there was 81% follow-through. It may be important then to view the high percentage in both conditions as evidence of the Supervisor Absent condition being a useful complement to more traditional supervisory methods. Specific implications of the findings for the number and type of commitments made and follow-through behavior in the presence or absence of the supervisor are discussed below.

Commitments Made

Results of the portion of the investigation focusing on commitments made provided corroboration for Shapiro & Anderson's (1989) findings by indicating that commitments of Types I-III were made during the supervisory conferences examined in

both studies and that Types IV and V were very rarely made. In both studies, the latter two types of commitments were made so rarely that comparisons of them with other types was not feasible. Both studies revealed that Type I and II commitments were made more often than the other three types. That is to say that the supervisees tended to talk about clinical procedures or administration rather than supervisory or academic issues.

The current investigation also attempted to determine whether the supervisor's presence, at the time a commitment was made, had an effect on the number of commitments made. Results indicated that the supervisor's presence did *not* have an effect on the number of commitments made during the supervisory conference, nor did the supervisor's presence differentially affect the number of commitments of any particular type that were made.

Research Question #1

Question #1 asked whether certain types of commitments would be made significantly more often than other types. The reader will recall that the types and numbers of commitments made were adjusted only to use Types I - III in this analysis. However, for the purpose of comparing Shapiro and Anderson's (1989) study with the present findings, *all types* of Commitments Made (I-V) were included in this section of the discussion. They were converted into percentages (number of a certain type / total number made) as follows:

Table 13. Conversion of raw number to percentage for commitments made

Commitment Type	Raw Number	Percentage
Type I	113	58.55 %
Type II	59	30.58 %
Type III	14	7.25%
Type IV	4	2.07 %
Type V	3	1.55 %
TOTAL	193	100%

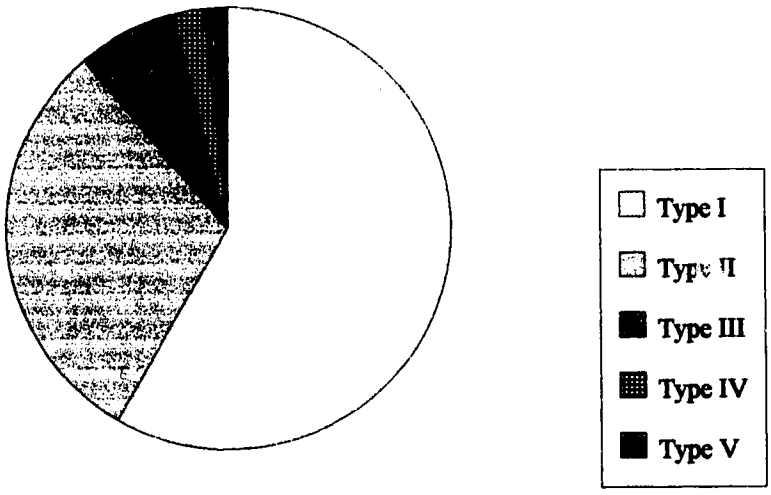
Inspection of Table 13 and Figure 7 indicates that the greatest percentage of commitments made involved implementation and/or change of a therapy or diagnostic technique and were client related. These were Type I or Clinical Procedures commitments. Type II or Clinical Process Administration commitments, which addressed planning, analysis, and evaluation of the clinical process while focusing on the client, were the second most frequent commitments made. Comparison of these means indicated that Type I commitments (Clinical Procedures) were made significantly more often than Type II (Clinical Process Administration) and Type III (Supervisory Procedures) commitments. Type II commitments were made significantly more often than Type III commitments, which addressed the implementation and/or change of a supervisee's behavior in therapy or the supervisory conference. It is clear then that students made commitments related to the clinical process and the client more often than they made commitments that were related to the supervisory process or academics.

When comparing the results from Shapiro and Anderson's (1989) study with the results of the present investigation, it was evident that the percentage of two types of commitments differed somewhat between the two studies (Table 14).

Table 14. Comparison of the percentages of five types of commitments made

The present study		Shapiro & Anderson (1989)	
Type I:	58.55 %	Type I:	39.00 %
Type II:	30.58 %	Type II:	47.00 %
Type III:	7.25 %	Type III:	4.00 %
Type IV:	2.07 %	Type IV:	8.00 %
Type V:	1.55 %	Type V:	2.00 %

Figure 7. Percentages of five types of commitments made



Shapiro and Anderson (1989) found that the greatest number of commitments made involved planning, analysis, or evaluation of the clinical process and particularly focussed on the client's behavior (Type II). Commitments addressing the implementation of a specific therapy or diagnostic technique, while focusing on the client, were the second most frequent (Type I). The percentage of each was approximately reversed in the present study, with the total for the two types being about equal.

There were two similarities between the present study and Shapiro and Anderson (1989) in terms of the number and type of commitments made. First, it was found that Type I and Type II commitments were made significantly more often than Types III, IV, and V. Secondly, a greater number of commitments made during supervisory conferences focussed on the *client*. Previous literature (Pickering, 1984; Roberts & Smith, 1982; Smith & Anderson, 1982; Tufts, 1984) suggested that participants in supervisory conferences spent most of their time focusing on the client, therefore the general finding that the supervisees made more of Types I and II commitments, which focussed on the client, was not surprising. The literature also stated that most of the conference focussed on *analyzing* client behaviors. Shapiro and Anderson's (1989) findings were consistent with those earlier observations, however in the present study, most of the conference focussed on implementation or change of a therapy or diagnostic technique rather than planning or analysis of client behaviors. The notion of making mostly Type I and II commitments during the conference may not be ideal. As Anderson (1988) mentioned, professional growth results in planning for more than just the client. Planning for the supervisee (Types III & IV) is also important, because this type of planning is believed to lead ultimately to a self-evaluative and independent clinician. Some possible explanations for the differences between the current findings and those of previous studies can be hypothesized.

One of the independent variables in Shapiro and Anderson's (1989) study was the level of the supervisees' academic and clinical experience. The authors found that the beginning clinicians in their study made more Type II commitments while the experienced clinicians made more Type I commitments. These findings concurred with Anderson's (1988) Continuum of Supervision. She maintained that beginning clinicians initially spent time understanding and planning, which enabled them to be more familiar with the clinical and supervisory process and prepare them to actively participate. Since the subjects in the current study were beginning clinicians, one would have expected more Type II commitments to be made than Type I commitments. However, results indicated the reverse meaning that, rather than initially focusing on planning, the supervisees focussed on implementing or changing a therapy or diagnostic technique. In other words, they made more Type I commitments, which made them appear more experienced. A possible explanation for this may have been the type of supervisory method used at the University of Alberta. As the reader will recall, the Collaborative Treatment Team approach (McFarlane, 1992) was in use during this study. This consisted of two student clinicians, two peer observers and a supervisor who was not present at all conferences. From the literature (Anderson, 1988; Dowling, 1979; Farmer & Farmer, 1989, McFarlane, 1992), it seems reasonable to believe that this method of supervision evoked a more relaxed atmosphere in which the participants collaborated and assisted each other. If this type of atmosphere was present in this study's supervisory conferences, perhaps the students had more opportunity and encouragement to collaborate regarding treatment techniques (Type I), thus generating more ideas. Some of the planning commitments (Type II) might have been dealt with verbally, and therefore, the supervisees did not document as many commitments for planning or analyzing their own or their client's behaviors.

Another possibility for the difference in results may have been that the peer observers were present during the treatment sessions. They may have analyzed the

client's or supervisees' behaviors informally and then discussed and planned collaboratively with the other supervisory participants. If this was true, the student clinicians may have had less need and fewer opportunities to formally document planning commitments, thereby exhibiting fewer behaviors considered characteristic of beginning clinicians.

Research Question #2

Question #2 asked what effect Supervisor Presence had on the number of commitments made during the supervisory conference. Results revealed that the supervisor's presence did not affect the number of commitments that the supervisees made. On the surface, one might expect that, since the students were beginning clinicians, they might not have been confident enough to make commitments without their supervisor's direction. In other words, the supervisor's presence during the conference was expected to yield an increase in the number of commitments made, compared to the condition of supervisor absence. As mentioned in Anderson's (1988) Clinical Supervision Model, it is often the case that supervisors direct and evaluate beginning clinicians as they move through the clinical and supervisory processes. Directive and evaluative supervisory feedback, while often necessary and appropriate, is at odds with the desired outcome of the supervisory process. Ideally, such feedback should be kept at a minimum, because it is believed to foster dependence rather than independence and to discourage self-analysis. The ultimate goal is to develop independent and self-directed clinicians who can engage in self-analysis regarding their own clinical behaviors with less direction from the supervisor. Therefore, it is encouraging to find that the supervisees in this study did *not* rely on the supervisor's presence when making commitments. Once again, these beginning students engaged in behaviors that were characteristic of more experienced students of the supervisory process. It is the author's assumption that the Collaborative Treatment Team approach had a great deal to do with this outcome. The supervisees may have seemed more

experienced in the supervisory process, because they were learning about it in a seminar that ran concurrent with their clinical placement. The intent of this approach was to put greater emphasis on ownership and problem-based learning. In this way, the students were able to develop the necessary skills of delivering feedback, self-analyzing and joint problem-solving. This is encouraging, because the students in the present study's supervisory conferences appeared to be assisting and consulting with each other rather than relying on the direction of the supervisor. Knowing when and how to seek peer consultation is one of the goals of the supervisory process.

Research Question #3

Question #3 asked whether Commitment Type and Supervisor Presence would interact to affect the number of commitments made. The data indicated that no interaction existed (Figure 3). The supervisor's presence did not affect the students' willingness to make commitments of any certain type. It is somewhat surprising that supervisor presence did not affect the number of commitments related to supervisee behavior (Type III). Commitments related to students' behavior may be dealt with best when supervisors are present, because a principal reason for supervisor and supervisee conferencing is to discuss and analyze students' clinical or supervisory behaviors. This time spent in discussion is an opportunity for supervisors to help students focus attention on their own clinical and conference behavior, thus encouraging supervisees to self-analyze and set appropriate behavioral goals. Evidently, discussion time often was not used in this way by the subjects in this study.

Follow-Through Behavior

Results of the portion of the investigation focusing on follow-through behavior provided corroboration for Shapiro and Anderson's (1989) findings. Visual inspection of mean proportions of follow-through for each type of commitment would indicate that follow-through tends to be greater for some types of commitments than for others. Both studies revealed that follow-through was visually higher for Type I commitments,

followed by Type II commitments, and then Type III commitments. However, significant differences among the three types were not found.

The current investigation also revealed that the supervisor's presence in the supervisory conference had an effect on the supervisees' follow-through behavior during the supervisory conference and/or treatment sessions. Also, supervisor presence seemed to differentially affect follow-through behavior on the various types of commitments.

Research Question #4

Question #4 asked whether students' follow-through on commitments was greater for some types of commitments than it was for others. The reader will recall that follow-through was expressed as a proportion and was derived by dividing the number of commitments completed by the number of commitments made. Visual inspection of Figure 4 indicated that the mean proportion of Follow-Through Behavior was greatest (95.06%) for Type I commitments, which involved the implementation and/or change of a therapy or diagnostic technique and were client related. Type II commitments, which addressed planning, analysis and evaluation of the clinical process while focusing on the client, had the second most frequent mean proportion (91.67%), followed by Type III commitments, which involved implementing or changing a supervisee's behavior (83.33%). Even though slight differences were seen in these mean proportions, the students' level of follow-through was about the same for all types of commitments and a significant difference was not found.

Shapiro's (1984) results paralleled the findings in this section. However, he only compared commitment Types I and II, because the majority of subjects had no occurrences of Types III, IV and V. Based on this comparison, he found that "the mean proportion of commitments completed tended to be greater for Type I commitments than for Type II commitments", but type did not have a significant influence on the proportion of commitments completed (p. 137). Therefore, it may be

safe to assume that the students in both studies did not perceive one type of commitment to be more important to follow through on than another type of commitment.

Research Question #5

Question #5 asked what effect supervisor presence had on the students' follow-through during the supervisory conference. When the supervisor was absent from the conference or treatment session, there were still others to whom the supervisees were accountable. Those were the peer observers. The reader will recall that the supervisor's presence did *not* have an effect on the number of commitments *made* by the supervisees. Assuming that the Collaborative Treatment Team approach was the reason for this outcome (i.e. the supervisees were accountable to their peers and/or their supervisor) one would expect that the supervisor's presence would not affect follow-through behavior. However, the findings indicated that, although follow-through was high in both conditions, there was a higher rate of follow-through on commitments when the supervisor was present. One can only hypothesize about some explanations.

In life, there appears to be an "accountability phenomenon" that makes us more likely to follow-through on something when we know that someone expects us to do so. This may be especially true when that individual is an authority figure. It may be safe to assume that, when the supervisor was present in a conference or treatment session, the supervisees felt it necessary to pay close attention to what they had committed to and make sure that an outcome was visible. It is possible that the supervisees perceived the supervisor to be a superior who ultimately had more of an effect on them than their peers did. To most people, the term *'supervise'* denotes the action of a person in authority. A definition taken from the Heritage Illustrated Dictionary of the English Language (1973) indicated that the term *'supervise'* meant "to direct and inspect the performance of workers" (p. 1292). In a sense, this is true for

supervisors in speech pathology and audiology. For example, it is a common practice in speech pathology and audiology for the supervisor to assign a clinical grade to student clinicians at the end of their placement. This, in all likelihood, caused the students to "perform better" when their supervisor was present. Therefore, greater follow-through was observed when the supervisor was present. However this finding was inconsistent with the impact of Supervisor Presence on commitments made. It may be that *making* commitments required a certain level of self-direction, which these beginning clinicians possessed, but that *following-through* on certain types of these commitments required more responsibility than they demonstrated. Since this was the beginning of the supervisees' training, the supervisor's presence may have been required for this higher level of responsibility. Even though the supervisees looked like experienced clinicians by demonstrating active participation, independent thinking, and little need for the supervisor to influence the number of commitments they made, the process of developing these skills may not have been complete. This was the students' first clinical placement. One would not expect to find them completely independent and self-directed. Perhaps more experienced clinicians would demonstrate consistent follow-through behavior irrespective of the supervisor's presence. At this stage of the students' training though, supervisors are needed. The Collaborative Treatment Team provides an opportunity for the supervisor to be present or absent during treatment sessions and conferences. This allows the supervisees a chance to develop their independence while still having some accountability and direction at the appropriate times.

Research Question #6

From Question #5, it was evident that the supervisor's presence positively affected the supervisees' follow-through behaviors. The next step was to ask whether Commitment Type and Supervisor Presence interacted to affect follow-through behavior. Visual inspection of Figure 6 would indicate a possible interaction. No

differences seemed evident when comparing Supervisor Presence by Type I and II commitments, but there appeared to be a possible difference with Type III because of the obvious divergence. The statistical comparison of Type III-Present versus Type III-Absent proportions revealed that Supervisor Absence did, in fact, cause supervisees to follow-through less often on Type III commitments but did not have a similar significant effect on any other type.

A possible explanation may be that because Type III commitments address the implementation and/or change of a *supervisee's behavior*, the supervisee may be less likely to follow-through on this type of commitment when the supervisor is absent. Perhaps the perception of the supervisor as an authority figure plays a part in this finding as well. In other words, since supervisees know that they will be 'graded' at the end of their clinical placement, they will most likely make every effort to please their supervisor with their clinical behavior. Following-through on a commitment that focuses on the clinician's behavior would be a positive thing. When the supervisor is absent from the conference or treatment session, it may be more expedient for the supervisee to focus on the client and set personal commitments aside for another day.

CHAPTER 6

CONCLUSIONS

This study was designed to identify and analyze supervisees' commitments and follow-through behaviors as one measure of supervisory conference effectiveness in speech-language pathology and audiology. The overall purpose was to determine whether the number of commitments made and proportion of follow-through differed significantly depending on the presence or absence of the clinical supervisor during a treatment session or supervisory conference. It was assumed that if more commitments were made and follow-through behavior was higher when the supervisor was present, the supervisor's involvement was important. Thus more commitments made in the presence of the supervisor than in the absence of the supervisor and resulting follow-through on commitments made in subsequent conferences or in the clinic, would be considered a direct and positive result of supervisory interaction.

This chapter will discuss the extent to which the hypotheses were supported by the results of this study. Limitations of this investigation and suggestions for future research also will be discussed.

Commitments and the Supervisory Conference

Results of this study indicated that supervisees were willing to make commitments in the supervisory conference and that follow-through on commitments made was extremely high. However, most commitments, which focused on the client, either referred to therapy and/or diagnostic techniques or planning, analyzing, and evaluating the clinical process. Only seven percent of the commitments addressed implementation or change of supervisee behavior, and only two percent included planning, analysis, or evaluation of supervisee behavior during the supervisory process. When fewer than 10% of the total number of commitments students make deal with changing their own behavior, that is arguably too few such commitments.

Commitments relating to the supervisory process are assumed to be important, because it is within the supervisory process that students engage in clinical practice and analysis of their clinical work. This analysis and "self-exploration provides opportunities for ...[clinicians] to integrate, discover, and develop aspects of [their] clinical personality, clinical practice, and technical knowledge" (Oratio, 1977, p. 134). These opportunities lead to independence and self-analysis which is important in most employment settings, and for that matter, throughout a professional's career. Therefore, increased discussion about supervisees' behaviors during conferences would provide opportunities for developing and refining their clinical work.

Few commitments addressed academic information. This is consistent with previous research (Shapiro & Anderson, 1989). Although the supervisees were receiving a seminar concurrent with their clinical placement, the focus of that seminar was not on academics. Rather, the seminar focused on areas such as treatment material development, developing treatment goals and treatment plans, data collection, report writing, the supervisory process, stress and time management and program evaluation and improvement. This is another type of conversation that arguably should occur in the conference with the supervisor. It would seem to be important that participants discuss a variety of topics related to clinical, supervisory and academic issues so that supervisees receive a balance of information and make commitments where necessary.

Results indicated that follow-through on commitments was very high and was not greater for any particular type of commitment. These findings are positive, because they indicate that the students considered the commitments to be important and were willing to complete their commitments regardless of type. It was interesting to find that there was a critical factor that affected supervisees' follow-through.

Supervisor Presence

A principal purpose of this study was to determine if the supervisor's presence had an effect on the number of commitments that the supervisees made and completed.

Results indicated that the supervisees in this study did not rely on the supervisor's presence when making commitments. Although the supervisor's presence did not affect the number of commitments made, it *did* affect the supervisees' follow-through behavior. Supervisees followed-through on more commitments when the supervisor was present. Greater follow-through was apparent for commitments that addressed implementation or change of supervisees' behavior than for any other types when the supervisor was present. Shapiro (1984) obtained similar results and stated that "supervisee accountability tends to increase the number of commitments related to the supervisory process" (p. 141). This suggests that supervisees' accountability to their supervisors is important and seems to be a critical factor in their follow-through, at least where commitments related to supervisee behavior change were concerned.

Accountability during the supervisory process can be accomplished in two ways. First, written documentation seems to aid in accountability. The present study used the Commitment Documentation Form which required supervisees to document their commitments. Shapiro (1984) found that using this form of documentation increased accountability for the beginning clinicians in his study. McFarlane and Hagler (1992a, 1992b) and Jans, Hagler and McFarlane (1994) found that using another form of written documentation, an agenda, during the supervisory conference increased supervisee involvement by providing a framework for discussion. When an agenda was prepared prior to a supervisory conference for use during the conference, there was evidence that supervisees may have felt more accountable for conference content. It is interesting to consider what might happen if one combined these two practices. Use of an agenda that includes reference to commitment Types III, IV, and V may be helpful in ensuring that an increase in those types of commitments occur. Having an agenda prepared ahead of time for use during the conference, followed by the Commitment Documentation Form being completed at the end of the supervisory conference, might

dramatically increase students' accountability and correspondingly increase the number of commitments made and completed.

Secondly, since the supervisor's presence affected follow-through behavior in this study, it is assumed that supervisor presence is a positive factor encouraging accountability which, in turn, encourages follow-through. As mentioned previously, we often follow-through on something when we know that someone expects us to do so. This seems to be true, especially when that individual is an authority figure. Therefore, supervisors are needed, especially for beginning clinicians.

A Paired Supervisory Model

After reviewing these findings, it can be seen that commitments were made and completed in the supervisory conference, indicating that the conference was effective. It seems appropriate to increase the number of commitments that relate to the supervisory process, because such commitments encourage student clinicians to participate more in their own educational plan and to eventually take charge of their professional growth. It seems clear that, when the supervisee is accountable, supervisory process commitments increase (Shapiro, 1984), and greater follow-through is seen for this type of commitment. This indicates that traditional supervision is indeed effective but that alternate methods may also be effective.

The current study used a supplement to traditional supervision. The Collaborative Treatment Team approach was implemented to give the students an opportunity to collaborate and assist one another in supervisory sessions while still relying on the supervisor when necessary. This type of approach combines independence with accountability and is advantageous for a number of reasons.

First, the Collaborative Treatment Team approach provides two environments in which students can make and follow-through on commitments: a team setting without the supervisor and a traditional setting. Having the team setting as a

supplement to traditional supervision gives the students an opportunity to make and complete *more* commitments than if there was only a traditional setting.

Secondly, since the students are acting as a team, they are more likely to be motivated to work together to come up with a number of different ideas. In otherwords, when more than two supervisees are involved in a discussion, a greater number and variety of commitments may result. Also, they are expected to develop problem solving and self-analysis skills within the team. This is one goal of the supervisory process in the sense that it prepares them for their professional career which includes clinical autonomy as well as functioning as a team member in a multidisciplinary setting.

Thirdly, this supplement to traditional supervision is advantageous, because it is more time-efficient for clinical supervisors. They will not need to be at every clinical or supervisory session since a group of peers is also available for supervisee accountability. When the supervisor joins the team, the amount of time in discussion is much less, presumably because the team has already dealt with a number of issues. Moreover, students may be more certain of what questions they have for the supervisor and can make the meeting more succinct.

Finally, two types of discussion and commitments result from the different conditions of supervisor presence. When the supervisor is absent, discussion of client issues is most likely to occur. When the supervisor is present, client issues might still be covered but knowing that this topic is occurring when the supervisor is absent, the supervisors could justify deliberately focusing more on commitments related to the supervisory process and academics.

In summary then, it seems that the ideal outcome is to implement the Collaborative Treatment Team approach, or other alternates, which provide the opportunity for the supervisor to be present or absent during treatment sessions or supervisory conferences, and to routinely ask students to use a conference agenda

which might increase the number of Type III, IV and V commitments. This gives supervisees a chance to develop their clinical autonomy while still having some accountability and direction from the supervisor at the right times.

This study has given empirical support for the effectiveness of contracts, setting specific objectives, and the importance of the supervisor's presence to ensure optimal follow-through on the part of beginning clinicians. Because of the significant results that were seen in the number and type of commitments made and follow-through behavior, this study has validated the assumption that the supervisory conference with peers, and with the supervisor, are effective in positively changing supervisees' clinical behavior.

Limitations of the Study

This study attempted to measure the supervisor's effect on student clinicians' commitments, made and completed, during the supervisory conference. A discussion of internal validity will evaluate whether the manipulation of the independent variables caused the changes seen in the dependent variables. A discussion of external validity will evaluate the generalizability of the results.

Threats to Internal Validity

Ventry and Schiavetti (1980) listed several factors that can influence internal validity. They include history, maturation, test practice, instrumentation, differential selection of subjects, mortality and the Hawthorne effect.

A history effect can transpire when an external event occurs between the first and second measure which then confounds the effect of the independent variables. In this study, the history effect was not a threat to internal validity simply because multiple measures were not taken for pre- and post-comparisons. Also, the Supervisor Presence condition was counter-balanced to eliminate order effects.

Maturation can also be a threat to internal validity. "While history refers to an event or events that occur outside the experimental setting...maturation refers to

changes in subjects themselves" (Ventry & Schiavetti, 1980, p.69). Since the data collection for this study was limited to a period of three consecutive weeks, it is believed that maturation effects were controlled. According to Ventry and Schiavetti (1980), "randomizing, counterbalancing, and/or replicating conditions all serve to reduce or eliminate maturation effects" (p. 72). All of these were taken into consideration in the present study by: *(1)* randomly assigning the subjects into two groups (Supervisor Present & Supervisor Absent), *(2)* having one of those groups begin with the supervisor present while the other began with the supervisor absent, and *(3)* reversing the treatment conditions and replicating the procedures in each condition. Therefore, maturation did not affect internal validity.

Test-practice was not a threat to internal validity since this study only required one measure for each variable for each subject pair. In other words, each pair of supervisees needed to complete the Commitment Documentation and Follow-Through Evaluation forms (the one measure) for each variable (Supervisor Present & Supervisor Absent) one time.

Instrumentation was not considered a threat to internal validity. For the Commitment Documentation Form (CDF), Follow-Through Evaluation Form (FEF), and the Commitment Classification System, reliability and validity were established by Shapiro (1984). Results from the present investigation revealed that the CDF and FEF were indeed valid and interjudge and intrajudge reliability for the classification system was high. It should be noted however that a number of statements on the CDF and FEF lacked specificity and accurate grammar. This made it difficult at times to decide whose behavior (i.e. client or clinician) was to receive major focus for classification. Shapiro (1984) stated similar difficulties. Since interjudge and intrajudge reliability was 96% in the present study, it is fair to say that the rater and the investigator agreed on their interpretations of the commitments and that the categories and descriptors for classifying commitments were adequately specific.

Ventry and Schiavetti (1980) also state that differential selection of subjects is another factor which can compromise internal validity. However, this factor did not affect the internal validity of this study because there was only one group of participants.

Subject mortality was evident in this study. Of the 16 student-pairs who participated, one student-pair could not complete the requirements of the study due to the fact that their client was unable to attend a therapy session. In this case, the supervisees' commitments could not be completed during the specified time-frame. This was a factor of chance and affected too few subjects to believe that results would have been different with their participation. Therefore, subject mortality is not suspected to influence the validity of this study.

The Hawthorne effect was a possible threat to internal validity. The Hawthorne effect refers to changes in subject behavior that occur because the subjects know that they are participating in a research study (Ventry & Schiavetti, 1980). This effect was likely present in this study due to the requirements of audio-taping the conferences and filling-out the Commitment Documentation Forms and the Follow-Through Evaluation Forms. However, this effect should be comparable across the two conditions, since there was no increased contact or attention for either group. Therefore, it would not have had a differential impact on supervisor presence. If the Hawthorne effect compromised the internal validity of this study, it probably would have inflated the number of commitments made and carried out. However, it's effects probably were no more serious here than in any other study in which the subjects realize they are participating in a research project.

In summary, this study had relatively few threats to internal validity. History, maturation, test-practice, subject selection and subject mortality did not seem to be threats to internal validity. There was some concern with the lack of specificity on the Commitment Documentation Form and the Follow-Through Evaluation Form.

However, this did not seem to affect internal validity, because findings so closely resembled those of Shapiro and Anderson (1989). The level of interjudge and intrajudge reliability likewise compared favorably. The Hawthorne effect may have been the threat it always seems to be when the subjects are required to do such things as audio-tape their conferences and fill-out forms.

Threats to External Validity

The first threat to external validity described by Ventry and Schiavetti (1980) is reactive or interaction effects of pretesting. Since pretesting was not done, this effect is not applicable to this study.

The second threat to external validity described by Ventry and Schiavetti (1980) was subject selection. This can arise when the subjects selected for a study differ from the population to which generalizations are made. Although the supervisors and supervisees who participated in this study were randomly assigned to the order of the treatment conditions, they were not randomly selected. The supervisees were selected on the basis of enrollment in the summer clinic, the first clinical practicum experience in a sequence at the University of Alberta. No other groups of subjects were available. The lack of previous clinical experience and type of courses received suggested that these subjects closely resembled those from any other program in speech-language pathology. Therefore, subject selection was not considered to be a threat to external validity.

Also of concern was the small number of subjects in this study. However, since the study compared data from the same subjects, in a repeated measures design, a smaller sample size was considered acceptable (Ventry & Schiavetti, 1980). Also, if future replication studies are done and provide corroboration for this investigation, greater external validity will be added to these findings.

Reactive arrangements are another threat to external validity (Ventry & Schiavetti, 1980). This factor deals with the extent to which treatment effects are

limited to the specific setting of the study. Tape-recording and the use of the Commitment Documentation Form and the Follow-Through Evaluation Form during the supervisory conferences may have resulted in an error source of reactivity. However, audio- or video-taping and using a variety of forms are often characteristic of supervisory conferences in speech pathology and audiology. Since this study had a specific setting, the in-house clinic, and the Collaborative Treatment Team approach required certain participants in precise arrangements, these might have functioned as sources of reactivity. If they did, these findings could not be generalized to all settings in speech-language pathology. External validity may be limited to other in-house clinics using similar forms and student groups in similar collaborative arrangements.

A final threat to external validity, as described by Ventry and Schiavetti (1980), is that of multiple treatment interference. Since only one treatment was administered, supervisor presence, this threat did not apply to this study.

A possible limitation of this study was that commitments were to be made and completed within one week of the supervisory conference. This may have adversely affected follow-through data by ignoring follow-through on commitments that could have been completed later in the placement. Generalization of the current findings to beginning, middle, and end of placements may not be valid without evidence that "time in placement" does not have a differential effect on commitments.

In summary, subject selection and sample size probably did not threaten external validity in this study. The subjects seemed to represent the population of all North American students in speech-language pathology. However, this study had a unique setting and condition, the university clinic and the Collaborative Treatment Team approach which limited the generalizability of the findings. Students in external placement sites who are not working in collaborative teams may not show similar results.

Implications for Future Research

After reviewing the results of the current study, some questions arise which may be answered in future research. This study concentrated on the effects of the supervisor's presence on commitments made and completed in treatment or supervisory sessions. Continued effectiveness studies of the supervisory process are needed. Specifically, focusing on ways to change the supervisees' conference behavior, that is to cause students to assume more responsibility in addressing issues related to their behavior in therapy and/or the supervisory process, and then measuring the effect of that learning on the client. A related study should focus on developing strategies that increase supervisee-related and supervisory process commitments. Similarly, a related study should investigate which types of commitments are made at different times within a specific clinical placement and also at different times across various placements. Additionally, it would be interesting to identify other effectiveness components in the supervisory process in speech-language pathology and in other disciplines. Studying different supplements to traditional supervision, to increase the efficiency of the supervisor's time and/or to provide a rich and varied experience for the supervisee, would be interesting. One suggestion might be to investigate the In Absentia supervision method, as discussed by Farmer and Farmer (1989), since there has not been a sufficient amount of research to support their assumption that supervisee participation in the supervisory conference increases in the presence of their peers and the absence of their supervisor. It might also be interesting to test the importance of the Collaborative Treatment Team approach as a supplement to traditional supervision.

REFERENCES

American Speech and Hearing Association. (1978). Committee on Supervision in Speech-Language Pathology and Audiology. Current status of supervision of speech-language pathology and audiology [Special Report]. Asha, 20, 478-486.

American Speech and Hearing Association. (1985). Clinical supervision in speech-language pathology and audiology. Asha, 26, 45-57.

Anderson, J. L. (1988). The supervisory process in speech-language pathology and audiology. Toronto, ON: College Hill Press.

Blumberg, A. & Amidon, E. (1965). Teacher perceptions of supervisor-teacher interaction. Administrator's Notebook, 14, 1-4.

Brasseur, J. (1989). The supervisory process: A continuum perspective. Language, Speech and Hearing Services in Schools, 20, 274-295.

Brasseur, J. & Anderson, J. (1983). Observed differences between direct, indirect, and direct/indirect videotaped supervisory conferences. Journal of Speech and Hearing Research, 26, 349-355.

Bruning, J. L. & Kintz, B. L. (1987). Computational handbook of statistics (3rd ed.). Glenview, IL: Harper Collins Publishers.

Caracciolo, G. L., Rigrodsky, S., & Morrison, E. B. (1978). A Rogerian orientation to the speech-language pathology supervisory relationship. Asha, 20, 286-290.

Cimorell-Strong, J. M., & Ensley, K. G. (1982). Effects of student clinician feedback on the supervisory conference. Asha, 24, 23-29.

Cogan, M. (1973). Clinical supervision. Boston, MA: Houghton Mifflin Co.

Crago, M. & Pickering, M. (Eds.). (1987). Supervision in human communication disorders: Perspectives on a process. San Diego, CA: Little Brown-College Hill Press.

Culatta, R. & Seltzer, H. (1976). Content and sequence analysis of the supervisory session. Asha, 18, 8-12.

Culatta, R. & Seltzer, H. (1977). Content and sequence analysis of the supervisory session: A report of clinical use. Asha, 19, 523-526.

Dowling, S. (1979). The teaching clinic: a supervisory alternative. Asha, 21, 646-649.

Dowling, S. (1983). Teaching clinic conference participant interaction. Journal of Communication Disorders, 16, 385-397.

Dowling, S. & Shank, K. (1981). A comparison of the effects of two supervisory styles, conventional and teaching clinic in the training of speech and language pathologist. Journal of Communication Disorders, 14, 51-58.

Dowling, S. & Wittkopp, M. (1982). Students' perceived supervisory needs. Journal of Communication Disorders, 15, 319-328.

Dussault, G. (1970). A theory of supervision in teacher education. New York, NY: Teachers College Press, Columbia University.

Farmer, S. & Farmer, J. (1989). Supervision in communication disorders. Columbus, OH: Merrill Publishers.

Gagnon, J., Roth, J., Carroll, M., Hormann, R., Haycock, K., Plamondon, J., & Feldman, D. (1989). SuperANOVA: Accessible general linear modeling. Berkely, CA: Abacus Concepts Inc.

Gillam, R., Strike Roussos, C., & Anderson, J. (1990). Facilitating changes in supervisees' clinical behaviors: An experimental investigation of supervisory effectiveness. Journal of Speech and Hearing Disorders, 55, 729-739.

Goldhammer, R. (1969). Clinical supervision. New York, NY: Holt, Rinehart & Winston.

Goldhammer, R., Anderson, R., & Krajewski, R. (1980). Clinical supervision (2nd ed.). New York: Holt, Rinehart & Winston.

Goodwin, W. M. (1977). The frequency of occurrence of specified therapy behaviors of student speech clinicians following three conditions of supervisory conferences. (Doctoral dissertation, Indiana University, 1976). Dissertation Abstracts International, 37, 3889 B.

Hagler, P. & Anderson, J. (1987). Effects of feedback on amount of supervisor talk during conferencing. Paper presented at the annual American-Speech-Language-Hearing Association Convention, New Orleans, LA.

Hatten, J. (1966). A descriptive and analytical investigation of speech therapy supervisors-therapist conferences. (Doctoral dissertation, University of Wisconsin, 1965). Dissertation Abstracts Journal, 26, 5595-5596.

Haycock, K., Roth, J., Gagnon, J., Finzer, W., & Soper, C. (1992). Statview: the ultimate integrated data analysis and presentation system. Berkely, CA: Abacus Concepts, Inc.

Hersey, P. & Blanchard, K. (1982). Management of organizational behavior (4th ed.). Englewood Cliffs, NJ: Pergamon.

Hess, A. K. (Ed.). (1980). Psychotherapy supervision: Theory, research and practice. Toronto, ON: John Wiley & Sons.

Huberty, C. J. (1987). On statistical testing. Educational Researcher, November, 4-9.

Irwin, R. (1981). Video self-confrontation in speech pathology. Journal of Communication Disorders, 14, 235-243.

Jans, L. (1993). Effects of agenda use over time on student clinicians' level of involvement in supervisory conferences. Unpublished master's thesis, University of Alberta, Edmonton, Alberta, Canada.

Jans, L., Hagler, P., & McFarlane, L. (1994). Effects of agenda use over time on participants' level of involvement in supervisory conferences. In M. Bruce (Ed.), Proceedings of the 1994 international and interdisciplinary conference on clinical supervision: Towards the 21st century. Cape Cod, MA: Council of supervisors in speech-language pathology and audiology.

Maslow, A. H. (1954). Motivation and personality. New York: Harper and Bros.

McCrea, E. (1980). Supervisee ability to self-explore and four facilitative dimensions of supervisor behavior in individual conferences in speech-language pathology. Dissertation Abstracts International, 41, 2134B. (University Microfilms No. 80-29, 239)

McFarlane, L. (1992). Clinical Program Planning. Unpublished proposal for the MSLP clinical program, University of Alberta, Edmonton, Alberta, Canada.

McFarlane, L. & Hagler, P. (1992a). An experimentally-based peer supervision component in a university clinic. In S. Dowling (Ed.), Total quality supervision: Effecting optimal performance. Proceedings of the 1992 National Conference on Supervision, Nashville, TN: Council of supervisors in speech-language pathology and audiology.

McFarlane, L. & Hagler, P. (1992b). Effects of supervisee-prepared agenda on conference interaction. In S. Dowling (Ed.), Total quality supervision: effecting optimal performance. Proceedings of the 1992 National Conference on Supervision, Nashville, TN: Council of supervisors in speech-language pathology and audiology.

Morris, W. (Ed.). (1973). The heritage illustrated dictionary of the English language. New York, NY: American Heritage Publishing Co., Inc.

Nelson, G. (1974, November). Does supervision make a difference? Paper presented at the Annual Convention of the American Speech-Language-Hearing Association, Las Vegas, NV.

Oratio, A. R. (1977). Supervision in speech language pathology: A handbook for supervisors and clinicians. Baltimore, MD: University Park Press.

Oratio, A. R., Sugarman, M., & Prass, M. (1981). A multivariate analysis of clinicians' perceptions of supervisory effectiveness. Journal of Communication Disorders, 14, 31-42.

Pickering, M. (1984). Interpersonal communication in speech-language pathology supervisory conferences: A qualitative study. Journal of Speech and Hearing Disorders, 49, 189-195.

Reitz, J. (1981). Behavior in organizations. Homewood, IL: Richard D. Irwin, Inc.

Roberts, J. & Smith, K. (1982). Supervisor-supervisee role differences and consistency of behavior in supervisory conferences. Journal of Speech and Hearing Research, 25, 428-434.

Rogers, C. H. (1965). On becoming a person. Boston: Houghton Mifflin.

Shapiro D., & Anderson, J. (1989). One measure of supervisory effectiveness in speech-language pathology and audiology, Journal of Speech and Hearing Disorders, 54, 549-557.

Shapiro D. (1984). An experimental and descriptive analysis of supervisees' commitments and follow-through behaviors as one measure of supervisory effectiveness in speech pathology and audiology. Unpublished doctoral dissertation, Indiana University, IN.

Smith, K. & Anderson, J. (1982). Relationship of perceived effectiveness to verbal interaction/content variables in supervisory conferences in speech language pathology. Journal of Speech and Hearing Research, 25, 252-259.

Smith, K. J. (1978). Clinical supervision: A process in progress. National Student Speech-Language-Hearing Association Journal, 13, 89-108.

Tufts, L. (1984). A content analysis of supervisory conferences in communicative disorders and the relationship of the content analysis system to the clinical experience of supervisees. Dissertation Abstracts International, 44, 3048B. (University Microfilms No.84-01, 588)

Underwood, J. (1973). Interaction analysis between the supervisor and the speech and hearing clinician. Dissertation Abstracts International, 34, 2995 B.

Ventry, I. M. & Schiavetti, N. (1980). Evaluating research in speech pathology and audiology: A guide for clinicians and students. Reading, MA: Addison-Wesley Publishing Company.

Ward, L. & Webster, E. (1965). The training of clinical personnel II: A concept of clinical preparation. ASHA, 7, 103-106.

Wellman, L. (1991). Effects of supervisor self-exploration on supervisor and supervisee conferencing behavior. Unpublished master's thesis, University of Alberta, Edmonton, Alberta, Canada.

APPENDIX A
COMMITMENT DOCUMENTATION FORM - {client's name}
(Adapted from Shapiro & Anderson, 1989)

Direct Clinician _____
Consulting Clinicians _____
Supervisor _____
Conference Date _____

List and describe completely the specific commitments that the clinician made during this supervisory conference. **Include only those commitments that are to be completed within 1 week**. These may relate to the clinical and/or supervisory process.

1.

2.

3.

4.

What **specific** observable behaviors will the clinician demonstrate to indicate follow-through (i.e. completion) of each commitment? Please number each to correspond with the above.

1.

2.

3.

4.

Signatures:

_____ _____
Direct Clinician #1 Direct Clinician #2

_____ _____
Consulting Clinician #1 Consulting Clinician #2

_____
Supervisor

APPENDIX B
FOLLOW-THROUGH EVALUATION FORM - {client's name}
(Adapted from Shapiro & Anderson, 1989)

During the treatment or supervisory session, describe specifically the clinician's follow-through behaviors as they correspond to the commitments from the Commitment Documentation Form. **These commitments must be completed within *one week* of being made.**

Commitment	Completed Yes/No	If Completed, DATE	Evidence of Completion/ Lack of Completion
1.			
2.			
3.			
4.			

The undersigned verify that the above stated behaviors were completed/not completed as specified by the documented follow-through behaviors.

Signatures:

_____ _____

Direct Clinician #1 Direct Clinician #2

_____ _____

Consulting Clinician #1 Consulting Clinician #2

_____

Supervisor

APPENDIX C
COMMITMENT CLASSIFICATION SYSTEM
(Adapted from Shapiro & Anderson, 1989)

Clinical Procedures - Type I:

A commitment that addresses the *implementation and/or change of a therapy or diagnostic technique*. Client-related activities are of major focus. These may include, *but are not limited to*, the following:

- therapy techniques
- strategies for behavior management
- reinforcement
- role playing
- live data collection (in session)
- generalization strategies
- assigning homework for the client
- self-monitoring by the client of a target behavior
- home programming
- family counseling
- conference with or observation by client, family member, or significant other to enhance transfer or home management
- administration of formal or informal diagnostic tests

Clinical Process Administration - Type II:

Commitments that address the *planning, analysis, or evaluation phases* of the clinical process. The focus is again client related and may include,*but are not limited to*, the following:

- establishing/writing client-related objectives
- writing lesson plans and reports
- record keeping/charting
- data analysis of client related behavior
- preparing equipment
- planning or designing programs or materials
- parent meeting to discuss report/plans/ etc.
- other activities that often occur before or after the clinical session

Supervisory Procedures - Type III:

Supervisee and/or supervisor behaviors are of major interest in this category. These may include, *but are not limited to*, the following:

- implementation or change of a supervisee's target behavior in the therapy session or supervisory conference
- conference interactions
- implementation of supervisory roles and responsibilities
- discussion of clinical or supervisory procedures and analyses as they relate to the clinician skill development
- other activities often occurring during the supervisory conference or therapy sessions where the supervisee/supervisor is the focus

Supervisory Process Administration - Type IV:

Commitments that address the *planning, analysis, or evaluation phases* of the supervisory process. The focus is on the improvement of clinician skills and may include, *but are not limited to*, the following:

- establishing personal objectives for the supervisee in the clinical or supervisory process;
- preparing for the supervisory conference;
- recording and analyzing data of clinician-related behavior;
- other activities that subsequently manifest clinician-behavior change in the therapy session or supervisory conference.

Academic Information/Teaching Function - Type V:

An intention to gain information about a disorder, the assessment or management of a disorder, a supervisory process issue, or other information of an academic (i.e. clinical or supervisory) nature. Commitments in this category usually take the form of an assignment to read or reference a book, article, or program manual.

APPENDIX D
COMMITMENT DOCUMENTATION FORM - {*Mr. S.*} - EXAMPLE OF USE
(Adapted from Shapiro & Anderson, 1989)

Direct Clinician _____
Consulting Clinicians _____
Supervisor _____
Conference Date _____

List and describe completely the specific commitments that the clinician made during this supervisory conference. Include only those commitments that are to be completed within 1 week. These may relate to the clinical and/or supervisory process.

1. *Jane will administer the Boston Diagnostic Aphasia Exam to Mr. S. during the next therapy session.*
2. *Jane will take specific data on Mr. S. during one treatment session.*
3. *During our next supervisory conference, Jane will take the lead by giving suggestions on what to do for the next therapy session with Mr. S.*
4. *By June 20, Jane will have finished Mr. S's assessment report.*

What specific observable behaviors will the clinician demonstrate to indicate follow-through (i.e. completion) of each commitment? Please number each to correspond with the above.

1. *BDAE will be administered during the session.*
2. *During Mr. S's therapy, Jane will tally the client's responses to 20 yes/no questions.*
3. *While discussing the client's treatment plan, Jane will offer at least three suggestions for therapy activities.*
4. *Report will be completed and given to the secretary by July 2.*

Signatures:

_____ Direct Clinician #1

_____ Direct Clinician #2

_____ Consulting Clinician #1

_____ Consulting Clinician #2

_____ Supervisor

APPENDIX E
FOLLOW-THROUGH EVALUATION FORM - {*Mr. S*} - EXAMPLE OF USE
(Adapted from Shapiro & Anderson, 1989)

Treatment Team:

During the treatment or supervisory session, describe specifically the clinician's follow-through behaviors as they correspond to the commitments from the Commitment Documentation Form. **These commitments must be completed within *one week* of being made.**

Commitment	Completed Yes/No	If Completed, DATE	Evidence of Completion/ Lack of Completion
1. *Administer BDAE*	*No*	____	*Was not possible to complete the commitment within one week.*
2. *Data collection*	*Yes*	*June 15*	*Data sheet with yes/no tallies*
3. *Suggestions during conference*	*Yes*	*June 16*	*Jane gave 3 suggestions: picture cards, Speech Viewer, trip to the mall*
4. *Report by July 2*	*No*	____	*Was not finished by July 2*

The undersigned verify that the above stated behaviors were completed/not completed as specified by the documented follow-through behaviors.

Signatures:

_____ _____

Direct Clinician #1 Direct Clinician #2

_____ _____

Consulting Clinician #1 Consulting Clinician #2

_____

Supervisor

APPENDIX F
INFORMED CONSENT

Project Title: Supervisory Conference Commitments

Background Information:

Student's name: _____

Supervisor's name: _____

Consulting Clinicians: _____ _____

You are invited to participate in a research project investigating the supervisory process and the interactions between supervisors and treatment teams. This study requires your consent to use the data from your Commitment Documentation Forms and Follow-Through Evaluation Forms for research purposes. There will be no additional time required for your participation.

Conference sessions will be audiotaped to ensure accurate interpretation of results. All information will be kept confidential. I am the only person who will have access to research materials that would identify you. To ensure your privacy, audiotapes will be identified by project identification number only.

Your participation in this study is completely voluntary. If you agree to participate, you may decide to withdraw from the study at any time without negative consequences.

If you have any questions about this investigation, please do not hesitate to call (439-3720). Thank you for considering this request. Your participation will be greatly appreciated!

I have read the above description of the research project to be conducted by Kerry Sherstan. I agree to participate and authorize the investigator to use sound recordings of myself during conference sessions, for research purposes. I have received a copy of this consent form.

_____ _____

Student Signature Date

_____ _____

Kerry Sherstan, Principal Investigator Date

APPENDIX G
LETTER OF INVITATION

June 28, 1993

Dear {direct clinician #1} and {direct clinician #2},

You are invited to participate in a research project investigating the supervisory process and the interactions between supervisors and treatment teams. The study requires your consent to use the data from your Commitment Documentation Forms and your Follow-Through Evaluations Forms for research purposes. There will be no additional time required for your participation. Your participation is v[illegible]ntary and you are free to withdraw from the study at any time without negative cor[illegible]ces.

Please find enclosed, four of each of the above mentioned forms. Each direct clinician will have two Commitment Documentation Forms and two Follow-Through Evaluation Forms. You will also find enclosed, specific instructions on how to complete these forms and an audiotape. If you wish to participate, please read through the instructions and **begin with the Week 1 form immediately**. I will be at your SPA 524 seminar on Wednesday, June 30 to answer any questions that you might have. In the meantime, feel free to call me at 439-3720 if you are unsure of any part of the instructions. It is imperative that you begin as soon as possible.

Thank you for your time and I look forward to talking with you on Wednesday.

Sincerely,

Kerry Sherstan, B.Sc.
Graduate Student

Enclosures

APPENDIX H
INSTRUCTIONS FOR COMMITMENT DOCUMENTATION FORM SUPERVISOR PRESENT

PROJECT TITLE: Supervisory Conference Commitments

TO: Treatment Team and Supervisor

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY.

Conduct the weekly conferences for {client #1} and {client #2} as you usually do.
During one conference for EACH client:

1. Audiotape (on side 1) the conference when the following people are present:

   * direct clinician #1
   * direct clinician #2
   * consulting clinician #1
   * consulting clinician #2
   * **supervisor**

2. Discuss, with the others, what commitments you will make.

   ***Be sure that the commitments can be completed within one week of making them. NO LATER!*

3. Complete Week 1 Commitment Documentation Form (CDF) at the end of this conference.

   In doing so, you will agree to:
   (a) one or more commitments which will be completed within one week of the conference and ,
   (b) the specific, realistic, observable behaviors supervisees will demonstrate to indicate completion of each commitment.

4. All participants sign the completed form.

5. Keep the corresponding audiotape and Commitment Documentation Form together. **You will need to refer to the CDF within ONE WEEK. See attached calendar.**

APPENDIX I
INSTRUCTIONS FOR FOLLOW-THROUGH EVALUATION FORM SUPERVISOR PRESENT

PROJECT TITLE: Supervisory Conference Commitments

TO: Consulting Clinicians and Supervisor

Please read the following instructions carefully. They pertain to the follow-through behaviors for the commitments made during the previous week.

During this week's conference, for each client, **the consulting clinicians and supervisor will do the following:**

1. Refer to the Commitment Documentation Form, completed in Week 1, for the direct clinicians' commitments made.

2. On the Follow-Through Evaluation form (FEF) - Week 2, record commitments made by the direct clinician(s) last week and describe as accurately and completely as possible, the specific behaviors the supervisees showed to demonstrate their completion/lack of completion of each commitment.

3. All participants sign the completed form. (Note: the consulting clinicians and supervisor will have watched for the follow-through of commitments but ALL individuals must sign the form, indicating agreement).

4. (a) KEEP THE AUDIOTAPE HANDY for the second half of this study (i.e. Weeks 3 & 4).
   (b) Return Week 1 and 2 CDF and FEF to Kerry Sherstan's mailbox in the SPA office.

APPENDIX J
INSTRUCTIONS FOR COMMITMENT DOCUMENTATION FORM SUPERVISOR ABSENT

PROJECT TITLE: Supervisory Conference Commitments

TO: Treatment Team

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY.

Conduct your weekly conferences for {client #1} and {client #2} as you usually do. **During one conference for EACH client:**

1. Audiotape (on side 2) the conference when the following people are present:

    * direct clinician #1
    * direct clinician #2
    * consulting clinician #1
    * consulting clinician #2

2. Discuss, with the others, what commitments you will make.

    ***Be sure that the commitments can be completed within one week of making them. NO LATER!*

3. Complete Week 3 Commitment Documentation Form (CDF) at the end of this conference.

    In doing so, you will agree to:
    (a) one or more commitments which will be completed within one week of the conference and ,
    (b) the specific, realistic, observable behaviors supervisees will demonstrate to indicate completion of each commitment.

4. All participants sign the completed form.

5. Keep the corresponding audiotape and Commitment Documentation Form together. **You will need to refer to the CDF within ONE WEEK. See attached calendar.**

APPENDIX K
INSTRUCTIONS FOR FOLLOW-THROUGH EVALUATION FORM SUPERVISOR ABSENT

PROJECT TITLE: Supervisory Conference Commitments

TO: Consulting Clinicians

Please read the following instructions carefully. They pertain to the follow-through behaviors for the commitments made during the previous week.

During this week's conference, for each client, **the consulting clinicians will do the following:**

1. Refer to the Client Assessment Documentation Form, completed in Week 3, for the direct clinician's commitments made.

2. On the Follow-through Evaluation form (FEF) - Week 4, record commitments made by the direct clinician(s) last week and describe as accurately and completely as possible, the specific behaviors the supervisees showed to demonstrate their completion/lack of completion of each commitment.

3. All participants sign the completed form. (Note: the consulting clinicians will have watched for the follow-through of commitments but ALL individuals must sign the form, indicating agreement).

4. Return all materials from Weeks 3 and 4 (audiotape, CDF and FEF) to Kerry Sherstan's mailbox in the SPA office.