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PSYCHOTHERAPY SUPERVISION:
SUPERVISOR EXPERIENCE AND SUPERVISORY STYLE

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PSYCHOTHERAPY SUPERVISION:

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By

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ABSTRACT

PSYCHOTHERAPY SUPERVISION:
SUPERVISOR EXPERIENCE AND SUPERVISORY STYLE

By

Douglas Mark Hardy

Previous research has generally found that psychotherapy supervisors do not become more competent, and change little in other ways, as they gain experience. This research has been limited, however, in that "experience" has always been defined either as number of years of experience as a supervisor or in terms of supervisors' status.

The 347 supervisors who participated in this study were selected from the population of all psychologists who were currently supervising individuals from agencies having APA-approved internship programs in professional psychology. These supervisors used the Supervisory Styles Inventory (SSI) to describe their supervisory style when supervising interns. The SSI measures three aspects of interpersonal supervisory style: attractiveness, interpersonal sensitivity, and task orientation. A factor analysis of several variables related to supervisors' experience yielded three factors:

amount of experience, informal study, and interest/perceived effect of experience.

A correlational analysis indicated that amount of experience, as well as amount of supervision of supervision, were not significantly related to supervisory style. However, for ABPP Diplomates, amount of experience was significantly related to interpersonal sensitivity ($r = .55$) indicating that experience may lead this select group of supervisors to become more interpersonally sensitive.

For all supervisors, informal study was significantly related to interpersonal sensitivity ($r = .26$), while interest/perceived effect of experience was significantly related to both interpersonal sensitivity ($r = .34$) and to attractiveness ($r = .23$). For ABPP Diplomates, interest/perceived effect of experience was significantly related to both interpersonal sensitivity ($r = .45$) and to attractiveness ($r = .63$).

Supervisors who thought that their experience had greatly influenced their supervisory style described themselves as being both more interpersonally sensitive and more attractive when supervising interns. However, even for these supervisors, there was no significant relationship between amount of experience and supervisory style. Perhaps the effect of experience is dependent upon the supervisor's stage of development, and/or

perhaps there are "critical incidents" in a supervisor's experience, and it is these isolated incidents which influence supervisory style.

Participants were also asked to complete the Supervision Level Scale (SLS). No significant relationship was found between any aspect of supervisors' experience and the SLS.

DEDICATION

To my father, Dr. J. W. Hardy, who has always loved me and wanted me to get a good education; to my wife, Janyce Collins; and to our son, Brian Winter Hardy, whose love, trust, and joy in living are a constant source of joy and inspiration for us.

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I also wish to thank Dr. Robert Caldwell who was an excellent individual supervisor as well as a valued member of my dissertation committee. Dr. Ralph Levine's statistical suggestions greatly increased the clarity of my dissertation. It was also as a teaching assistant for Dr. Levine that learned how much I enjoy teaching. Finally I wish to thank Dr. Bertram Karon. Dr. Karon was a member of my dissertation committee and also taught me much about both the TAT and the use of psychotherapy with schizophrenic patients. I have always appreciated his intelligence, his love of life, and the honesty with which he expresses his always interesting opinions.

My deepest love goes to my mother, Mary Winter Hardy, who always loved me so very much, and wanted me to be happy. I wish she was here to see her grandchildren.

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INTRODUCTION

In 1957 Carl Rogers described the field of psychotherapy supervision as having generated little research. This description has continued to be accurate until quite recently, most notably because of the lack of comprehensive theoretical models on which to base research (Wiley & Ray, 1986). Each school of therapy gave rise to its own theories of supervision, each of which was assumed to be the best for all therapists at all times (Hess, 1980). The research studies generated from these theories have tended to be few in number, limited in scope, specific to one theoretical orientation, and often unrelated to previous research. Even studies done by a single researcher were seldom related to one another (Miars, Tracey, Ray, Cornfeld, O'Farrell, & Gelso, 1983b).

Over the past 10 years, we have seen the rise of developmental models of supervision, of which at least 16 now exist (Worthington, 1987). These models are generally not tied to any specific school of therapy, yet are remarkably similar in their basic assumptions (Miars et al., 1983b; Worthington, 1984a); the most central of which is that psychotherapists progress

through qualitatively different stages (with different motivations, needs, and potential resistances) and thus need a changing supervision environment over the course of training to facilitate their developmental movement into more advanced stages (Reising & Daniels, 1983; Stoltenberg, 1981).

These models have had a heuristic effect on empirical supervision investigations, redefining old issues, focusing attention on new questions, and generally leading to results which have broad applicability across all formats and orientations to supervision (Miars et al., 1983). It has been found, for example, that many supervisee characteristics (expectations and preferences for supervision, problems experienced in supervision, satisfaction with supervision, etc.) do change with increased experience (Heppner & Roehlke, 1984; Wiley & Ray, 1986) and that supervisors provide qualitatively different (but not necessarily better) supervision to therapists in different stages of development (Zucker & Worthington, 1986b).

Now that the answers to the above questions are becoming more clear, attention has begun to shift to the question of whether supervision changes as supervisors gain experience. In other words, "Do experienced

supervisors supervise differently than inexperienced supervisors, and, if so, how?"

This question has arisen partially from the desire to provide more adequate training for supervisors. Supervisors presently get little, if any, specific training in supervision, and they very clearly want more (Hardy, 1981/1982; McColley & Baker, 1982). If we knew how supervisors tend to change as they gain in supervisory experience, we might more effectively advise and train inexperienced supervisors. Comparing experienced and inexperienced supervisors is also of interest as most findings in this field are based upon the work of relatively inexperienced supervisors. If there are important differences between supervision as practiced by experienced and inexperienced supervisors, then many of these findings can be generalized to experienced supervisors only with a good deal of caution.

Data for research investigating the effects of a supervisor's increasing experience on the way that person conducts individual supervision must be gathered from the supervisee, from the supervisor, or from an uninvolved third party who analyzes the performance of a supervisor who is either engaged in actual supervision or who has been placed into an experimental analogue of supervision. To date, eleven major studies investigating the effects of supervisor experience have

been published, six using the supervisee or supervisor as the information source and five analogue studies. In none of these studies, however, have supervisors been observed while engaged in actual supervision.

Although there are many theoretical and common-sense reasons for assuming that supervision requires skills that are refined with experience and that supervisors might therefore pass through "stages" of development, almost no empirical evidence supports these assumptions (Zucker & Worthington, 1986b). Taken at face value, the above research generally indicates that supervisors do not change, develop, or improve as they gain in supervisory experience. If correct, this finding would have broad implications for supervision theory, training, and practice.

There are, however, several other viable interpretations of the above results (Zucker & Worthington, 1986b). First, it is possible that the supervisors sampled to date have been too inexperienced to have significantly different supervisory styles and abilities. Second, the instruments and methods used may have been an ineffective means of detecting the differences that are there. Lastly, variables other than supervisory experience as usually defined (such as amount of supervised practice in supervision, priority assigned to supervision, etc.) may be responsible for

changes in supervisory style and ability as supervisors mature.

Previous research has generally gathered data on supervisor style from the supervisee or from observations of supervisors placed into an experimental analogue of supervision. These investigations have tended to use instruments that do not uniquely tap supervisor style (having been developed for other purposes), that combine items at several different levels of analysis (necessitating that the data be analyzed and interpreted item-by-item), and that are applicable to only a single level of supervisee development.

The present study investigates the relationship between supervisor experience and supervisory style using subjects, formats, and instruments designed to minimize the limitations of previous research. Data will be collected both by observation of supervisors engaged in actual supervision, as well as through supervisor perceptions, using measures which have been shown (Friedlander & Ward, 1984; Wiley & Ray, 1986) to uniquely tap supervisor style at a single level of analysis, while being applicable to supervision of therapists at all levels of development. Finally, variables other than supervisory experience as usually defined which may be responsible for changes in

supervisory style and ability as supervisors mature will be examined. The relevant literature is reviewed in the next chapter.

LITERATURE REVIEW

Definition of Supervision

Supervision of the therapy conducted by psychotherapists-in-training is considered essential by practitioners of all existing approaches to psychotherapy (Lambert, 1980). In the words of Hester, Weitz, Robach, Anchor, and McKee,

> The supervisor-supervisee relationship is the cornerstone of psychotherapy training. . . . This relationship is. . . the medium through which the attributes, feelings, and behaviors necessary for effective psychotherapy are taught (1976, p. 671).

Definitions of supervision are many and varied, primarily because they are usually specific to a particular theoretical orientation, but also because the term is used differently by various professions. For the purpose of this research project, supervision will be defined as: a process designed to increase the clinical competence of a psychotherapist within the context of an individual relationship between an experienced clinician and a practicing therapist.

As thus defined, supervision is generally applicable to the major mental health professions (clinical and counseling psychology, psychiatry, and

social work) but not to the fields of industrial/organizational psychology, business management, rehabilitation counseling, educational guidance and counseling, and pastoral counseling. It excludes any training a therapist receives before beginning to actually treat clients/patients, as well as all training that is not provided within the context of an individual relationship. This definition thus excludes group supervision, not because it is assumed to be ineffective or unimportant, but only because the process and mechanisms of group and individual supervision may be dissimilar.

Supervisor Training

Surveys conducted by Stanton, Sanchez, and Klesges (1981) and by McColley and Baker (1982) indicate that clinical psychology supervisors have generally received little formal training in supervision. In the opinion of McColley and Baker,

> It appears at times that one is considered qualified for supervision by nature of having been supervised and of having achieved doctoral status. . . . almost 80% of the respondents felt that more training in supervision would be helpful (1982, p. 290).

Until recently, training in supervision has been largely limited to two basic methods (Loganbill & Hardy, 1983). First, transfer of therapy training, in which training in psychotherapy is considered sufficient

training for supervision. And second, reciprocal role experience, in which having been supervised is assumed to give the supervisee the necessary skills to adequately function as a supervisor. This situation is changing, however, as 56% of relatively inexperienced supervisors supervising in APA-approved clinical psychology graduate programs and internships have received some supervised experience in conducting supervision (McColley & Baker, 1982).

Developmental Models of Supervision

Theoreticians have recently begun to conceptualize psychotherapy supervision as a developmental process in which the supervisee changes in ways other than simply acquiring certain skills and theoretical knowledge. According to Stoltenberg,

> The trainee is viewed not just as a counselor lacking specific skills, but as an individual who is embarking on a course of development that will culminate in the emergence of a counselor identity. The end point constitutes the integration of skills, theory, and a more complete awareness of oneself and others (1981, p. 59).

At least 16 developmental models of supervision have been proposed to date (Worthington, 1987). These models are remarkably similar in their basic assumptions, indicating to Worthington (1984a) that (a) theoreticians have had similar experiences as supervisors; (b) there is an underlying implicit theory

leading supervisors to observe similar phenomena; and/or (c) supervision theorists are depending upon the same seminal theories, such as that developed by Hogan (1964).

Assumptions Common to Developmental Models of Supervision

The basic assumptions underlying most developmental models of supervision are as follows:

1. Supervisees progress through simple or complex stages of development as they gain in experience and competence. (See Reising & Daniels, 1983 for a theoretical comparison of simple vs. complex stage models.)

2. Supervisees in different stages of development have qualitatively different motivations, needs, and potential resistances in addition to, and not accounted for by, quantitative differences in skills and theoretical knowledge (Stoltenberg, 1981).

3. Supervisees in different stages of development thus need qualitatively different supervision environments over the course of their development to encourage their movement into more advanced stages.

4. Supervisees show many individual differences even though they go through similar stages.

5. Speed of a supervisee's progress through stages is highly variable and is a function of individual

differences in the supervisee and in the environments experienced during development.

6. Assessment of the developmental stage a particular supervisee is currently in is thus of great importance in determining how to best supervise that supervisee.

Beneficial Effects of Developmental Models of Supervision on Supervisory Theory and Practice

Developmental models represent the first unified focus or related set of theories in the supervision literature. Prior to their development, this literature was dominated by the "schools" approach to training (Hess, 1980) in which many theorists described their own approaches to supervision which were assumed to be the best for all supervisees at all times. These multiple, divergent theories of supervision gave rise to research dominated by isolated and seemingly unrelated investigations into aspects of supervision which were generally specific to a particular theoretical orientation (Miars et al., 1983b). Developmental models have integrated this literature and have lead to the study of broader questions of interest to supervisors of all orientations.

These models have redefined and given a new perspective on long-standing research questions (such as the relative efficacy of didactic vs. experiential

supervision) while at the same time focusing attention on previously neglected issues, thus generating many new research questions. For example, it has become clear that research must move beyond a study of novice supervisees to study therapists at all levels of training and development. In addition, attention has been focused on the supervisor and the task of tailoring the supervision environment to the needs of the specific supervisee. This is in marked contrast to the earlier supervision literature which focused almost exclusively on the supervisee (Lambert, 1980).

Developmental models, once sufficiently validated and accepted by the therapy professions, have the potential to greatly affect supervision practice. These models are becoming increasingly comprehensive (Loganbill, Hardy, & Delworth, 1982), describing the normal course of therapist development, providing guidelines for determining what developmental stage a therapist is currently in, and giving specific recommendations as to how to supervise that therapist to help facilitate movement into a more advanced stage.

Stoltenberg's Counselor Complexity Model

Stoltenberg's (1981) Counselor Complexity Model will be discussed in some detail as it has been tested and validated by more empirical research than any other

specific developmental model, and because it forms the basis for the Supervision Level Scale (SLS) which will be used in Study 1 of this dissertation. It is also specific, comprehensive, and has been described by Worthington (1984a) as the most heuristic model to date.

Stoltenberg based his developmental model on previous work by Hogan (1964) and Hunt (1971). Hogan created the first developmental model of supervision by identifying four levels of therapist development and by suggesting general supervisory methods for supervisees at each of these levels. Hunt's Conceptual Systems Theory describes four stages of conceptual development, the developmental work that must be done by the individual for advancement to the next highest stage, and the optimal environments for individuals at each level that will best facilitate that advancement.

Appendix A (Stoltenberg, 1981, p. 60) outlines Stoltenberg's four levels of supervisee characteristics and the supervision environments that he considers most beneficial for supervisees at each level. The four stages of supervisee development focus on how supervisees struggle with issues of dependency vs. autonomy with their supervisors.

According to Stoltenberg (1981), Level I supervisees are dependent on authority, insecure, and uninsightful of the impact they have on others. They

tend to think in categories, and are searching for the "right" way to do psychotherapy. They are thus prone to identify closely with either their supervisor or with some well-known theorist. Stoltenberg recommends that the supervisor of a Level I supervisee (a) provide didactic teaching; (b) allow the supervisee's imitation; (c) allow/request some autonomy (don't answer all questions in concrete terms, etc.); and (d) attend to the supervisee's behavior in supervision and in therapy, within a supportive relationship, in order to increase the supervisee's awareness of how the therapist, the client, and the supervisor affect one another.

Level II supervisees are experiencing a dependency/autonomy conflict as they attempt to assert their own individuality while still having strong dependency needs. Their self-awareness is increasing, and they see that they tend to oscillate between feeling overconfident and feeling overwhelmed. Stoltenberg recommends that the supervisor of a Level II supervisee offer high autonomy with low normative pressure. The supervisee should be allowed more latitude in making decisions as the supervisor shifts from being a teacher to acting as a reference source. The supervisor must still be prepared to teach and to give advice when necessary, however.

At Level III, the dependency/autonomy conflict has evolved into supervisees seeing themselves as therapists and feeling a professional self-confidence. They now have substantial insight into their own dependency needs and neurotic motivations and feel an increased empathy toward others. They are dependent when appropriate, being neither counterdependent nor the unvarying disciples of any given technique. Stoltenberg recommends that supervision of a Level III supervisee become more of a peer interaction with an emphasis on sharing, in which both parties can gain insight and support from the experience. The supervisor can now share personal ideas, concerns, and weaknesses without losing the attention or respect of the supervisee.

Level IV therapists are capable of independent practice due to an adequate awareness of their personal limitations.

> The counselor has a personal security based upon an awareness of insecurity; is insightful, with full awareness of the limitations of insight; and is able to function adequately, even with some occasional changes in degree of motivation (Stoltenberg, 1981, p. 63).

They are willfully interdependent on others and have integrated the standards of the profession into their personal value systems. Such therapists have the insight to know when professional or personal

consultation is necessary. Some therapists will never reach this level of development.

Research Supporting Stoltenberg's (1981) Counselor Complexity Model

Many recent research studies have supported and confirmed the general assumptions and predictions of developmental models. This section will focus upon three studies which were specifically based upon, and designed to test, Stoltenberg's (1981) model.

Miars, Tracey, Ray, Cornfield, O'Farrell, and Gelso (1983b) were the first researchers to use Stoltenberg's (1981) model as the basis for empirically investigating the supervision process. They constructed the Level of Supervision Survey (LSS) based upon the supervision environments postulated by Stoltenberg. Their purpose was to assess certain dimensions of the supervision process as they vary across supervisee training level.

The participants were 37 Ph.D.-level supervisors (16 male, 21 female) with a mean of 8.2 years of postdoctoral supervision experience. Each supervisor was asked to respond to each LSS item four times, indicating how appropriate they thought each item was to the supervision of first semester practicum, second semester practicum, advanced practicum, and intern supervisees. Some supervisors did not have experience in supervising one or more of the supervisee training

levels but were instructed, "Even if you have not supervised at each level, please respond to all items as you think they apply to each level" (Miars, et al., 1983a, p. 1).

They found that supervisors do perceive themselves as varying their supervision across supervisee training level, with the largest difference being between second semester practicum and advanced practicum. They also found that theoretical orientation was related to the extent to which supervisors reported that they varied supervision across supervisee training level, with psychodynamic supervisors reporting themselves as varying supervision more than humanistic or cognitive-behavioral supervisors.

McNeill, Stoltenberg, and Pierce (1985) constructed the Supervisee Levels Questionnaire (SLQ) to assess supervisee developmental characteristics. The 24 items were based upon Stoltenberg's (1981) description of supervisees at different levels of development and were classified by four expert judges into three subscales (Self-Awareness, Dependency-Autonomy, and Theory/Skills Acquisition) with higher scores reflecting higher levels of supervisee development.

The participants were 91 supervisees (41 male, 50 female) from eight geographically diverse training programs. They were classified into beginning,

intermediate, and advanced groups based upon a composite of their experience in graduate school, counseling, and received supervision. The subjects described themselves on each of the 24 SLQ items using a 7-point Likert scale with "never" and "always" as polar anchors. Significant differences in the predicted direction were found between all three groups on each of the SLQ subscales, with the Dependency-Autonomy subscale appearing to be the most sensitive. No significant differences were found between clinical and counseling psychology supervisees.

Most recently, Wiley and Ray (1986) designed the Supervision Level Scale (SLS) based upon both the supervisee characteristics and the optimal supervision environment characteristics postulated by Stoltenberg (1981). In Part One of the SLS, supervisors (38 male, 33 female) described a specific supervisee, then in Part Two they described the supervision that they had provided to that supervisee. The two sections of the SLS are scored so as to indicate the developmental level of the supervisee, the developmental level of the supervision provided, and the congruency of these levels.

It was found that mean number of semesters of supervised (but not of unsupervised) therapy experience was significantly related both to supervisee

developmental level and to the level of supervision provided to that supervisee. There was, however, no significant relationship between supervision outcome and the congruence between supervisee level and the level of the supervision provided. Supervision outcome was assessed through supervisor and supervisee ratings of satisfaction and learning.

Wiley and Ray (1986) note four possible explanations for this negative finding. First, satisfaction and learning ratings were high at all supervisee training levels resulting in a possible ceiling effect for these ratings. Second, large discrepancies between the level of the supervisee and the level of the supervision provided to that supervisee were rare. Third, person-environment congruency may be a relatively unimportant variable with respect to supervisee satisfaction and learning. And fourth, it is possible that supervisee learning and satisfaction is optimal not when the personal and environmental levels match, but when the environment provided is one step above the supervisee's developmental level.

This study was an advance over previous research in that supervisees were categorized by developmental level as opposed to training level. Almost all previous studies have assumed that these two variables are interchangeable; however, Wiley and Ray's (1986) results

indicate that the two are quite different for many supervisees. Another strength of the SLS is that it "did not implicitly suggest that supervision might be varied across level as does a survey that asks directly how they differ in behavior by supervisee training level" (Wiley & Ray, 1986, p. 444).

Taken together, the above three studies indicate that Stoltenberg's (1981) Counselor Complexity Model shows considerable predictive validity with supervisees and the supervision environments provided to them generally changing in the predicted ways as the supervisees develop. It must be noted, however, that in none of these studies have supervisors and supervisees been observed while engaged in actual supervision.

Research Generated by Developmental Models of Supervision

To date, three major lines of research have been derived from developmental models of supervision, each investigating a different question. These three lines of research will be discussed below.

Do Supervisee Characteristics Change as They Gain Therapy Experience?

Many empirical research studies have explored various aspects of this question (for example: Cross & Brown, 1983; Friedlander & Ward, 1984; Gysbers &

Johnston, 1965; Hansen, 1965; Heppner & Roehlke, 1984; Hill, Charles, & Reed, 1981; Kadushin, 1974; McNeill, Stoltenberg, & Pierce, 1985; Nelson, 1978; Reising & Daniels, 1983; Rabinowitz, Heppner, & Roehlke, 1986). These studies have tended to be fairly similar, varying along three basic dimensions (method, subject sampling, and specific supervisee characteristics focused upon). The methods used were generally either to survey or to interview supervisees about their characteristics. Subjects were followed longitudinally, or were sampled across either one or several training levels. Lastly, these studies have focused upon a great variety of supervisee characteristics, including: expectations for supervision, preferences for supervision, self-perceived supervision needs, satisfaction with supervision, perception of supervisor's role, perception of supervisor's attractiveness, expertise, and trustworthiness, problems experienced in supervision, concerns about supervision, locus of control, critical incidents in supervision, important supervision issues, important supervisor interventions, etc.

The evidence from these studies clearly indicates that supervisee characteristics and preferences for supervision do change as they gain in therapy experience in ways generally consistent with the changes hypothesized by most developmental models of

supervision. These studies thus strongly validate developmental models in general; however,

> Little is known about how to supervise effectively or how supervisees systematically change over time other than what has been discerned through these exploratory, self-report surveys of supervisees' preferences (Wiley & Ray, 1986, p. 439).

Does Supervision Change as Supervisees Gain Therapy Experience?

This question has been explored through four related avenues of research, in which most of the studies have been cross-sectional in design (Zucker & Worthington, 1986b; Worthington, 1987). First, it has been shown that supervisees in different training levels perceive their supervisors as providing different supervision environments (Heppner & Roehlke, 1984; Reising & Daniels, 1983; Worthington, 1984a; Worthington & Stern, 1985). Second, supervisors perceive themselves as varying supervision according to supervisee ability and training level (Miars et al., 1983b; Wiley & Ray, 1986). Third, supervisors have been observed to behave differently during supervision with supervisees in different training levels (Raphael, 1981/1982). Lastly, Worthington and Stern (1985) found that supervisor and supervisee perceptions of their relationship differ at different supervisee training levels.

The third line of research derived from developmental models of supervision forms the basis for

this dissertation. The remainder of this chapter is thus devoted to a detailed review of this research.

Do Experienced Supervisors Supervise Differently Than Inexperienced Supervisors?

Until recently, supervisors have received little, if any, specific training for supervision; they face many stresses and problems when they first begin to supervise; and an overwhelming majority of them want more supervision training (McColley & Baker, 1982). In the opinion of Ellis and Dell (1986, p. 290), "The areas of training supervisors and supervisor development represent a new frontier for researchers and theoreticians to explore." With the above question, we empirically enter that frontier, with the ultimate purpose of providing more adequate training and support for beginning supervisors.

There are many theoretical and common-sense reasons for assuming that supervisors change and improve as they gain in supervisory experience (Auerbach & Johnson, 1977; Worthington & Stern, 1985). If we could understand the normal course of supervisor development (how they tend to change over the course of their training and experience), we could then use this understanding to provide feedback to supervisors and to direct their attention to critical aspects of the

supervisory process, so as to hopefully speed their development, ease their problems, and increase their effectiveness.

As mentioned in the Introduction, this question is also of theoretical interest as most findings in this field are based upon the work of relatively inexperienced supervisors. The generalizations that have been based upon these findings will thus have to be limited if it is shown that there are important differences between supervision as practiced by experienced and inexperienced supervisors.

Problems Inherent in the Empirical Study of the Effects of Supervisor Experience

There are several problems inherent in the empirical study of the effects of supervisor experience. First, there are supervisor demographic characteristics other than experience level which might also affect supervision style (theoretical orientation, profession, and gender). These characteristics should be either controlled or monitored in any study investigating the effects of supervisor experience.

Second, supervisor experience is a continuous variable; yet, for the purpose of research, supervisors are usually split into discrete groups. Various studies have done this in different ways. The experienced supervisors in one study may be quite similar to the

inexperienced supervisors in a different study. This problem is most clear in the analogue research, in which some "experienced" supervisors have had as little as one term of supervisory experience (Stone, 1980).

Third, there is a group of variables, other than supervisor experience as usually defined, which may be responsible for changes in supervisory style and ability as supervisors mature. These include amount of supervised experience as a supervisor, number of supervisees supervised, classes/seminars in supervision, interest in supervision, informal reading, study, and consultation about supervision, etc. Variables such as these should be monitored in any study investigating the effects of supervisor experience.

Lastly, experience level is sometimes quite different from developmental level, at least for supervisees (Wiley & Ray, 1986), and thus possibly for supervisors as well. At present, there is no way to classify supervisors by developmental level due to the lack of a sufficiently comprehensive theory of supervisor development.

Previous Research Investigating the Effects of Supervisor Experience

Analogue studies, which have placed supervisors of varying experience into an experimental analogue of supervision, will be described first, in chronological

order. The first analogue study investigating supervisor experience was that of Sunblad and Feinberg (1972). The participants were 55 rehabilitation counselor supervisors. Supervisors were mailed a Supervisee Introduction Statement designed to produce a positive, neutral, or negative set of expectations about an analogue supervisee. They were then asked to respond in writing to three vignettes (supervisee statements) exactly as if they were responding in a real supervisory session. These written responses were analyzed for the presence of the three Rogerian facilitative conditions by means of the Carkhuff Scales (1969). It was found that the experienced supervisors showed the highest level of facilitative functioning when their expectations were positive, and the lowest level of facilitative conditions when their expectations were negative.

Smith (1975/1976) split 34 supervisors (counseling psychology faculty and doctoral students) into four groups on the basis of experience (high vs. low) and orientation to supervision (didactic vs. experiential). The supervisors listened to a 15 minute analogue therapy tape, then supervised the "therapist" for 30 minutes. Both client and therapist were trained actors. The tapes of these "supervision" sessions were analyzed with Troth's (1966/1967) Counselor Subrole Scale indicating

that supervisor experience was unrelated to supervisor behavior in the 30 minute "supervision" session. In addition, the more experienced supervisors described themselves as being more didactic in orientation to supervision on the Expectations About Supervision scale, while the inexperienced supervisors described themselves as being more experiential.

Stone's (1980) inexperienced supervisors were 10 undergraduates who were trained in reflective communication. The 17 experienced supervisors were cognitive-behavioral in orientation and had at least one term of experience as supervisors. Subjects were asked to imagine that they were about to supervise a novice (whose only training was viewing a 10 minute videotape) in order to facilitate reflective communication. Participants were instructed to "think aloud" for 15 minutes as they planned how to supervise this novice. It was found that the experienced supervisors generated a greater number of planning statements and that more of these statements concerned the supervisee than did the planning statements of the inexperienced supervisors.

Worthington (1984b) defined four levels of supervisor experience (untrained undergraduates, pre-M.A. clinical and counseling students, post-M.A. clinical and counseling students, and Ph.D.-level

faculty supervisors). Each "supervisor" listened to a 10 minute therapy tape and was then asked to rate the degree to which both the therapist and the client could be accurately described by each of eight trait labels. Worthington found that the more experienced the "supervisor", the less likely that supervisor was to think that either the client or the therapist was accurately described by the each of these trait labels. Worthington concluded that inexperienced supervisors have a tendency to incorrectly attribute therapist behavior in therapy to the personal traits of that therapist.

The most recent analogue study investigating supervisor experience is that of Marikis, Russell, and Dell (1985) who based their study on Stone's (1980) research. Supervisors of three experience levels (first year counseling students with no experience as supervisors (70% female), advanced counseling students who had functioned as supervisors for between 16 and 100 hours (60% female), and Ph.D.-level staff with 2 to 18 years of supervisory experience (60% female)) listened to a 30 minute analogue therapy tape (with an actor client and an M.S.W. therapist), then planned aloud for 30 minutes as to how they would supervise the therapist, then actually supervised the therapist for 30 minutes. No difference was found among the three groups in

planning statements. It was also found that during the supervision session the no experience supervisors made fewer total comments, made fewer supervisor-oriented comments, evoked less subject-matter statements from the supervisee, and produced less supervisee satisfaction when compared with both of the other groups. These results may indicate that the no experience supervisors were generally less active than the experienced supervisors. There were no significant differences between the medium and high experience supervisor groups.

The validity and generalizability of analogue studies such as the above is a matter of controversy among researchers and clinicians. Studies investigating the effects of supervisor experience, through the use of self-report-type instruments will be discussed next, again in chronological order.

Goodyear and Robyak (1982) assumed that clinical supervision has three central foci: (a) the person of the supervisee; (b) the supervisee's skills and techniques; and (c) the supervisee's conceptualization of the client's problems. They surveyed 84 counseling center supervisors regarding their theoretical orientation, years of professional experience, number of supervisees seen, and the percentage weight for each focus used in evaluating their supervisees. It was

found that more experienced supervisors shared similar emphases in evaluating their supervisees, while less experienced supervisors were more divergent in ways consistent with their theoretical orientation. These results are similar to those found by Fiedler (1950) in his classic investigation into the effects of therapist experience.

Miars et al., (1983b) conducted a study to investigate whether supervisors perceive themselves as varying their supervision environment according to supervisee training level. In a secondary analysis of several supervisor demographic variables, it was found that number of years of post-Ph.D. supervision experience (1-5, 6-11, more than 11) was not related to the degree to which supervisors reported varying supervision across supervisee training level.

Worthington (1984a) surveyed 237 supervisees at three levels of training (beginning practicum, advanced practicum, and internship) about the frequencies of various supervisor behaviors during the preceeding semester. Supervisors were classified into two groups depending on whether or not they had yet received their Ph.D. degrees. Worthington found that pre-Ph.D. supervisors were rated by their supervisees as producing equal satisfaction, being equally competent, and as having had an equal impact as the post-Ph.D.

supervisors. It was also found that the two supervisor groups did not differ in how frequently supervisees reported that they performed 47 of 48 supervisor behaviors.

Worthington and Stern (1985) had 95 practicum student-supervisor pairs (from a master's level or non-APA-approved doctoral counseling program) rate their relationship three times during a semester. At the end of the semester, supervisees rated the frequency with which their supervisors had performed each of 48 behaviors. The primary purpose of the study was to investigate changes in the supervisory relationship over time. Data analysis showed no significant differences between pre and post-Ph.D. supervisors either in quality of supervisory relationship formed or in the supervisee-reported frequency of 48 supervisor behaviors.

Zucker and Worthington (1986a) surveyed 34 predoctoral interns and 25 postdoctoral psychologist applicants for licensure, who were employed in university counseling centers, about the supervision they received. Supervisors were divided into groups by whether or not they were licensed. Since each state determines its own licensing standards, and since the supervisors in this study practiced in 17 different states, the difference in experience between the two groups of supervisors is difficult to ascertain. It was

found that supervisor license status was not important in determining either the supervisee-reported frequency of supervisor behaviors or how highly rated the supervisors were by their supervisees.

Lastly, Ellis and Dell (1986) used a complex multidimensional scaling research design to assess the salient dimensions that supervisors rely on in their perceptions of supervisor roles. One of their findings was that supervisor experience (interns vs. counseling psychology faculty) did not affect supervisor perceptions of supervisor roles. This research (like that of Friedlander & Ward, 1984) also found that supervisory style seems to be composed of three relatively independent dimensions.

The above 11 studies provide scant evidence that supervisors change, develop, or improve as they gain in supervisory experience. In the opinion of Worthington and Stern,

> This question deserves special attention of researchers. To study supervision as a science or teach it as a craft requires supervisors to be able to improve with proper experience. Presumably supervisors should refine their skills with experience, and this should show up in producing better counselors and better client outcomes. At present, no research supports this presumption (1985, p. 260).

Given the minimal number and design problems of the above research, four interpretations of the results are possible (Zucker & Worthington, 1986b). First,

supervisors may not change, develop, or improve as they gain in supervisory experience. Second, the supervisors sampled to date may have been split into experienced and inexperienced groups in too unrefined a manner for the groups to have significantly different supervisory styles and abilities. Third, the methods and instruments used may have been an ineffective means of detecting the differences that are there. And lastly, variables other than supervisory experience as usually defined may be responsible for changes in supervisor style and ability as supervisors mature.

The purpose of the present research is to investigate the relationship between supervisors' experience and supervisory style using subjects, methods, and instruments designed to minimize the limitations of the above studies. The hypotheses, subjects, methods, and instruments of the two studies comprising this research project are described in the next chapter.

METHOD

Two studies were performed. For the sake of clarity, these studies will be discussed individually.

Study 1

Hypothesis 1: Supervisors' experience regarding supervision is significantly related to their supervisory style when supervising interns.

Hypothesis 2: Supervisors' experience regarding supervision is significantly related to how closely the supervision provided to a particular psychotherapist matches that supervisee's stage of development.

Subjects

The participants of this study were 347 psychologists who were currently supervising individuals from agencies having American Psychological Association (APA) approved internship programs in professional psychology.

Instruments

Demographic Information Sheet (DIS). (Appendix B)

The DIS was designed by the experimentor for use in this research project. See Appendix B for its content.

Supervision Level Scale (SLS). (Appendix C)

The SLS was designed by Wiley and Ray (1986) and is based upon Stoltenberg's (1981) Counselor Complexity Model. This theory is specific and comprehensive (Wiley & Ray, 1986; Worthington, 1984a) specifying how both supervisees and their optimal supervisory environments change over the course of development. It has been empirically validated by several studies (McNeill et al., 1985; Miars et al., 1983b; Wiley & Ray, 1986).

The SLS consists of two sections (Appendix C). In Section One, the supervisor describes a specific supervisee. In Section Two, the supervisor describes the supervision that has been provided to that supervisee. The SLS is then scored using the SLS Scoring Sheet (Appendix D) resulting in three numbers representing the developmental level of the supervisee, the developmental level of the supervision provided to that supervisee, and the congruency between these levels. (See Appendix E for a description of the supervisee and supervision characteristics which the SLS is designed to measure).

Wiley and Ray (1986) found that the median test-retest reliability correlation over two weeks for the subscales of Section One of the SLS was .86 and for Section Two was .87. The four subscales of Section One represent to what degree the supervisee is functioning

at each of Stoltenberg's (1981) four developmental levels. The four subscales of Section Two represent the degree to which the supervision provided meets the needs of these four levels of supervisees.

Content validity was evaluated (Wiley & Ray, 1986) by having a group of four "experts" (personally identified by Stoltenberg) and a group of four experienced supervisors with at least three years of postdoctoral supervision experience, sort the 40 SLS items into one of four developmental levels. Each item was correctly classified by at least 50% of the combined groups. In addition, concurrent validity was shown by Wiley and Ray's finding that amount of supervised experience was significantly related both to the supervisee's developmental level and to the supervision environment provided to that supervisee. In this relatively unexplored area, and given the recent development of this instrument, no further validity studies have as yet been conducted with the SLS.

Supervisory Styles Inventory (SSI). (Appendix F)

The SSI was developed by Friedlander and Ward (1984) for the purpose of uniquely tapping supervisor style at a single level of analysis which would be applicable to all formats and theories of supervision. Many supervisors (N = 357) and supervisees (N = 316)

took part in the five studies whose purpose was to empirically identify the salient dimensions of supervisory style and to create an instrument that would accurately reflect both supervisors' and supervisees' perceptions of that style.

Supervisory style is defined by Friedlander and Ward (1984, p. 541) as "the supervisor's distinctive manner of approaching and responding to trainees and of implementing supervision." As thus defined, supervisory style emphasizes the interpersonal and relationship aspects of supervision, which may be one of the most important variables contributing to supervision outcome (Ekstein & Wallerstein, 1972; Loganbill et al., 1982).

The SSI consists of 25 scored and 8 filler items, each of which describes a particular interpersonal approach to supervision. Two factor analytic studies were done by Friedlander and Ward (1984) with dissimilar populations of both supervisors and supervisees. These two studies found three factors that are clearly defined, interpretable, and remarkably similar, suggesting that a particular supervisor's interpersonal approach to supervision varies along three dimensions. These factors have been named Attractive, Interpersonally Sensitive, and Task Oriented.

Reliability of the SSI was estimated in three ways (Friedlander & Ward, 1984). First, Cronbach's alpha was

used to estimate the internal consistency of each of the three scales and of the entire instrument. These estimates ranged from .76 to .93. Second, item-scale correlations ranged from .70 to .88 for the Attractive scale, from .38 to .76 for the Task Oriented scale, and from .51 to .82 for the Interpersonally Sensitive scale. Lastly, test-retest reliability for the combined scales was .92.

Validity of the SSI was assessed in six ways by Friedlander and Ward (1984). First, all three scales and 24 of the 25 scored items within the scales were not significantly related to social desirability. Second, convergent validity was demonstrated by finding a strong relationship between the empirically derived SSI scales and an instrument designed to measure the supervisor roles postulated by Stenack and Dye (1982). Third, the Interpersonally Sensitive scale was shown to differentiate between supervisors who work in inpatient vs. outpatient settings, with the outpatient supervisors describing themselves as being more interpersonally sensitive during supervision. Fourth, supervisors of differing theoretical orientations (psychodynamic, humanistic, cognitive-behavioral, and eclectic) were shown to describe their supervisory styles differently on some of the SSI scales. Fifth, therapists' ratings of their supervisors' styles were found to be related to

their satisfaction with supervision and with their willingness to work with different model supervisors. Lastly, it was found that supervisory style as measured by the SSI was related to the supervisees' level of development.

Procedure

1. A letter (Appendix G) was sent to the chief psychologist/psychology director of all agencies having APA-approved internship programs in professional psychology explaining the study and requesting permission to contact supervisors in the agency. The chief psychologist was also asked to provide a list of all psychologists who were currently supervising practicum students, interns, or postdoctoral psychotherapists on an individual basis in their agency.

2. A random sample of these supervisors was then individually contacted by letter (Appendix H) to solicit their participation. Enclosed with this letter was:

   a. a response postcard (Appendix H)

   b. a Demographic Information Sheet (DIS) (Appendix B)

   c. a Supervision Level Scale (SLS) (Appendix C)

   d. A Supervisory Styles Inventory (SSI) (Appendix F)

   e. a stamped, addressed envelope for returning the materials

3. Supervisors who did not return the response postcard were contacted a second time by mail.

Data Analysis

For hypothesis 1, supervisors were asked to use a 7-point Likert scale to rate the extent to which each of the 33 SSI items generally describe their interpersonal style when supervising interns. Supervisor experience was then correlated with scores on the three SSI scales. For hypothesis 2, supervisor expience was correlated with the congruency (as measured by the SLS) between supervisee level of development and the level of supervision provided to that supervisee.

Study 2

Hypothesis 1: Supervisors' experience regarding supervision is significantly related to the proportion of different supervisor interventions when supervising beginning practicum level psychotherapists.

Study 1 relied upon supervisor perceptions as the data source. Study 2 is the first contemporary research project to explore the question of whether supervisors' experience is significantly related to their actual behavior in supervision. It must be considered exploratory, however, given the difficulty of obtaining an adequate number of participants with the desired characteristics.

Subjects

Participants in this study were pairs of supervisors and beginning practicum-level psychotherapists from the Michigan State University (MSU) Counseling Center and the MSU Psychological Clinic. The supervisors ranged in experience from interns functioning as supervisors for the first time to senior staff with many years of supervisory experience.

Instruments

Demographic Information Sheet (DIS). (Appendix B)

Holloway's Adaptation of the Blumberg Interactional Analysis System (BIA). (Appendix I)

The following general information regarding tape rating systems is adapted from Raphael (1981/1982). All tape rating systems focus on at least one of three categories of information (content, intersubjective, or extralinguistic) and use one of two coding strategies (classical or pragmatic) (Russell & Stiles, 1979). Content categories describe the subject of the discussion and can be either specific (spouse, job, etc.) or general (depression, anxiety, etc.). This type of system is most often used to explore internal psychodynamic processes, motives, and traits. Intersubjective categories describe the syntax of verbal behavior independent of the subject of the conversation

(questions, interpretations, etc.) and are usually used to study relationships, process, and technique. The last category is extralinguistic and codes non-language vocal noises in an attempt to assess transitory emotional states (Russell & Stiles, 1979).

Each of the above category types can be coded in a classical or pragmatic manner. Pragmatic coding systems describe characteristics of the parties involved that are not manifest in the record and must be inferred (feelings, intentions, motivations, etc.), while classical coding systems describe characteristics clearly manifest in the record (saying the word "sister", asking a question, etc.). Classical and pragmatic coding systems as described above define the end points of a continuum. Where a coding system falls along this continuum has a great effect on the amount of training and expertise the raters must have to effectively use the system.

Russell and Stiles (1979) and Goodman and Dooley (1976) have defined certain criteria that a tape rating system should ideally meet. These criteria are listed below. The first three are general recommendations from Russell and Stiles for all rating systems, whereas the next five recommendations are from Goodman and Dooley's criteria for coding helper/helpee interactions.

1. The categories should be mutually exclusive.

2. The categories should be exhaustive.

3. The categories should represent a single classification principle.

4. The number of categories in the system should be small and should be applicable to both measurement and training.

5. Classification should be classical, not requiring vague inferences or knowledge of complex theory by the raters.

6. Categories should describe behavior at the response level while allowing units to be added in order to describe longer interactions.

7. The system should be applicable to all theories of supervision.

8. The system should use intersubjective categories emphasizing the process or style of communication rather than the content or topic. This increases the generalizability of the findings.

The instrument chosen for rating supervision tapes in this study is an adaptation of the Blumberg Interactional Analysis System (BIA) (Blumberg, 1970). This system was designed for analyzing supervisor-teacher interactions, but was adapted by Holloway for analyzing psychotherapy supervision sessions (Holloway,

1982; Holloway & Wampold, 1983; Holloway & Wolleat, 1981).

Holloway's adaptation of the BIA meets the criteria listed above reasonably well. See Appendix I for a description of the categories into which the BIA codes all supervisor comments. This system can be scored so as to yield one number per category (the proportion of comments falling into each category). The interrater reliability of this system has been found to be .85 by Cryan (1972), .90 by Reavis (1977), .75 and .78 by Holloway and Wolleat (1981), and .72 by Holloway and Wampold (1983).

Procedure for Obtaining Subjects and Gathering Data

1. Pairs of supervisors and beginning practicum-level therapists at the MSU Counseling Center and the MSU Psychological Clinic were contacted by the experimentor, first by letter (Appendix J) and then by phone, to explain the study and to obtain their informed consent to participate in this research.

2. The supervisors and supervisees were asked to fill out a consent form (Appendix K), and the supervisors also filled out the Demographic Information Sheet (DIS).

3. One supervision session was taped in its entirety. Subjects were assured that both their

identities as well as the contents of the tapes would remain confidential. The tapes were erased after being coded.

Procedure for Training Raters and Rating Tapes

Two persons, one with a bachelor's degree in psychology and the other a high school graduate, served as tape raters. They first studied the coding manual (Appendix I) and discussed any questions that they had with the experimentor. The raters then rated practice tapes. When discrepancies arose, these were discussed with the experimentor and the resolution was noted in the training manual. This process continued until the interrater reliability between the two raters had reached an acceptable level. The two raters then rated each experimental tape together. If a discrepancy arose, they resolved it between themselves and noted the resolution in the coding manual.

Data Analysis

Data was analyzed so as to determine the relationship between supervisor experience and the proportion of supervisor comments falling into each of the BIA categories.

RESULTS

Study 1: Hypothesis 1

Subjects

The individuals asked to participate in this study were selected from the population of all psychologists who were currently supervising individuals from agencies having American Psychological Association (APA) approved internship programs in professional psychology. Of this group, 347 supervisors chose to participate, which represents a response rate of 52%. Table 1 summarizes some of the characteristics of these participants as revealed by their responses on the Demographic Information Sheet (DIS). Table 2 summarizes the participants' training in supervision.

Preliminary Analysis

The preliminary question asked in this study was, "Is supervisory style related to supervisor gender and/or theoretical orientation?" The answer depends upon which aspect of supervisory style is being examined.

Friedlander and Ward (1984) empirically determined that supervisors' interpersonal approaches to supervision vary along three relatively independent

Table 1

Summary of Major Demographic Variables for Study 1.

Variable	Mean/ Percentage	Standard Deviation
Age	42 years	9 years
Gender	63% male	
License status	93% state licensed or certified	
ABPP Diplomates	9%	
Theoretical orientation		
- psychodynamic	32%	
- eclectic	28%	
- cognitive and/or behavioral	20%	
- other	20%	
Degree		
- Ph.D.	91%	
- Psy.D.	4%	
- Ed.D.	2%	
- M.A.	3%	
Degree field		
- Clinical Psychology	68%	
- Counseling Psychology	16%	
- Psychology	13%	
- Educational Psychology	1%	
- other	2%	
Experience		
- as a psychotherapist	15 years	8 years
- as a supervisor	11 years	8 years
Number of therapists supervised	49	79
Proportion of professional activity devoted to supervision	16%	11%

Table 2

Summary of Demographic Training Variables for Study 1.

Variable	Percentage who received this type of training	Mean hours of training (excluding those who received no training of this type)
Formal supervision of supervision		
- individual	41%	56 hours
- group	22%	45 hours
- total	51%	67 hours
Other formal training regarding supervision		
- seminars	18%	14 hours
- classes	6%	35 hours
- workshops/ presentations	2%	15 hours
- meet with consultant	1%	10 hours
- total	27%	28 hours

dimensions which they named Attractive, Interpersonally Sensitive, and Task Oriented. These dimensions, as measured by the Supervisory Styles Inventory (SSI) are the dependent variables in this experiment. The Attractive scale of the SSI (SSI.A) is composed of 7 items with an alpha reliability, in this study, of .82. The Interpersonally Sensitive scale (SSI.IPS) is composed of 8 items with a reliability of .77; and the 10-item Task Orientation scale (SSI.TO) was found to have a reliability of .80 in this study.

A 2-way ANOVA showed that theoretical orientation was significantly related to both Task Orientation $F(3,318) = 6.34$, $p < .0005$ (Table 3), and to Interpersonal Sensitivity $F(3,323) = 11.22$, $p < .0005$ (Table 4), but not to Attractiveness (Table 5). The Scheffe procedure and Table 6 indicate that the cognitive and/or behavioral group is less interpersonally sensitive by 0.74 standard deviation units and more task oriented by 0.59 standard deviation units than the other theoretical orientations, which are not significantly different from one another.

As will be discussed in the section entitled "Evaluating Multiple Significance Tests," any significance test associated with hypothesis 1 must have an error rate per comparison no greater than .0167 to be considered significant. Tables 3, 4, and 5 thus

Table 3

ANOVA of Task Orientation by Sex and Theoretical Orientation.

Source of Variation	SS	DF	MS	F	p
Within Cells	162.67	311	.52		
Sex	2.38	1	2.38	4.54	.034
Theory	9.95	3	3.32	6.34	.000
Sex by Theory	1.89	3	.63	1.21	.308

Table 4

ANOVA of Interpersonal Sensitivity by Sex and Theoretical Orientation.

Source of Variation	SS	DF	MS	F	p
Within Cells	144.48	316	.46		
Sex	.75	1	.75	1.65	.200
Theory	15.39	3	5.13	11.22	.000
Sex by Theory	.43	3	.15	.32	.814

Table 5

ANOVA of Attractiveness by Sex and Theoretical Orientation.

Source of Variation	SS	DF	MS	F	p
Within Cells	140.61	319	.44		
Sex	.15	1	.15	.35	.556
Theory	1.11	3	.37	.84	.474
Sex by Theory	1.66	3	.56	1.26	.289

Table 6

Means and Standard Deviations of Interpersonal Sensitivity and Task Orientation Broken Down by Theoretical Orientation.

Variable	Group	Mean	Standard Deviation
SSI.IPS	cog-beh	4.88	.77
SSI.IPS	others	5.40	.66
SSI.IPS	total	5.30	.71
SSI.TO	cog-beh	4.82	.67
SSI.TO	others	4.38	.74
SSI.TO	total	4.47	.75

indicate that supervisor gender was not significantly related to any aspect of supervisory style and that there was also no significant interaction between gender and theoretical orientation for any aspect of supervisory style.

Factor Analysis

Since the correlation matrix for the experience variables showed some high inter-correlations, a factor analysis was performed on the 8 major experience variables. A ninth experience variable (DIS28, number of hours of supervision of supervision received) was not included in this factor analysis because its largest correlation with any of the other experience variables was only .16. Bartlett's test of sphericity showed that the correlation matrix was not an identity matrix (417.90, $p < .000005$); and the Kaiser - Meyer - Olkin measure of sampling adequacy was .64, an acceptable' level for proceeding with the factor analysis (Kaiser, 1974).

A principal components analysis was used to transform the 8 experience variables into 8 initial factors. When all 8 of these factors are included in the solution, all of the variance of each variable is accounted for; and the communality of each variable

(proportion of variance accounted for by the common factors) is therefore 1.0.

Since three of the initial factors had eigenvalues of more than 1.0, and since a plot of the total variance associated with each factor (scree plot) showed a clear break between the first three factors and the gradual trailing off of the rest of the factors; it was decided that three factors were needed to represent the data. These three factors together accounted for 64.3% of the total variance.

An orthogonal rotation was performed by the varimax method. The rotated factor matrix (Table 7) shows that each experience variable is heavily loaded on only one factor. An oblique rotation was also performed by the oblimin method. The resulting factors shared a maximum of 4% of their variance in common and resulted in the same grouping of variables as did the orthogonal rotation. The interpretation of the factors is the same for either rotation method.

Following are the defining items for each factor. Factor 1 was labelled <u>Informal Study</u> and is defined by three items (alpha reliability = .72): frequency of informal consultation with other supervisors regarding supervision issues (DIS40), frequency of reading and study regarding supervision (DIS39), and how much effect supervisors think that such informal study has had upon

Table 7

Rotated Factor Matrix

Variable	Factor 1	Factor 2	Factor 3
DIS 42	.81	.20	-.05
DIS 39	.79	-.04	.23
DIS 40	.79	.16	-.19
DIS 24	-.10	.77	.00
DIS 43	.15	.73	.12
DIS 19	.30	.62	.03
DIS 7	-.08	.09	.87
DIS 18	.06	.05	.83

their supervisory styles (DIS42). Factor 2 was labelled Interest/Perceived Effect of Experience and is defined by three items (alpha reliability = .51): interest in supervision (DIS19), and how much effect supervisors think their experience as psychotherapists (DIS24) and as supervisors (DIS43) have had upon their supervisory styles.

Factor 3 was labelled Amount of Experience and is defined by two items (alpha reliability = .73): number of years of experience as a supervisor (DIS7), and total number of supervisees ever supervised (DIS18). The first of these items is the way in which supervisory experience has usually been defined in previous experiments.

Evaluation of Hypothesis 1

Hypothesis 1: Supervisors' experience regarding supervision is significantly related to their supervisory style when supervising interns.

The primary question of this research was, "Is supervisor experience related to supervisory style?" The answer is "yes" for some aspects of supervisor experience and "no" for others.

We will first examine the correlation matrix between the three experience factors and the three aspects of supervisory style measured by the SSI

(Table 8). Since the hypothesis is nondirectional, all significance tests are 2-tailed.

The preliminary analysis (previously discussed) showed that supervisors' theoretical orientation is significantly related to their self-perceived levels of both interpersonal sensitivity and task orientation when supervising interns. To compensate for this, first-order partial correlations adjusting for the effect of theoretical orientation will be used whenever experience factors or variables are correlated with SSI.IPS or with SSI.TO. The Attractive scale (SSI.A) was related to neither supervisor gender nor theoretical orientation and so uses zero-order correlations.

Table 8 shows that Amount of Experience (Factor 3) is not significantly related to any measured aspect of supervisory style. Informal Study (Factor 1) is significantly related to Interpersonal Sensitivity (r = .26, $p < .0005$); while Interest/Perceived Effect of Experience (Factor 2) is related to both Attractiveness (r = .23, $p < .0005$) and to Interpersonal Sensitivity (r = .34, $p < .0005$). The 95% confidence limits for each significant correlation are given in Table 8.

A multiple regression analysis was conducted with SSI.IPS being the dependent variable and Factors 1 and 2 being the independent variables. The Beta weights of these two factors were .18 and .30, respectively. The

Table 8

Correlation Matrix: Experience Factors by SSI Scales

Factor	SSI.A	SSI.IPS**	SSI.TO**
Factor 1	.07 p = .226	.26 (.15-.37)* p = .000	.04 p = .549
Factor 2	.23 (.12-.34)* p = .000	.34 (.24-.45)* p = .000	.06 p = .307
Factor 3	.01 p = .925	.11 p = .064	.05 p = .375

*95% confidence interval.

**These columns contain first-order partial correlations controlling for the effect of theoretical orientation.

multiple R was .39 indicating that both factors together can predict SSI.IPS better than either one of them can alone.

Appendix L lists the significant correlations between the individual experience variables and the three SSI scales. All significance tests are 2-tailed. These are 27 correlations in the complete matrix.

Ancillary Analyses

A small proportion of the participants (9.2%, n = 32) are Diplomates (members) of the American Board of Professional Psychology (ABPP). This is a voluntary board set up along similar lines and for similar purposes, as the American Board of Medical Specialties. Both organizations intend that their memberships have higher levels of experience, training, and competence than is found in the general population of physicians and professional psychologists; and they attempt to achieve this goal by examining applicants and by setting standards which applicants' training and experience must meet. It therefore seemed potentially valuable to analyze the responses of the 32 ABPP Diplomates as a group.

Table 9 gives the correlation matrix between the three experience factors and the three SSI scales for the subgroup of ABPP Diplomates. There are three

Table 9

Correlation Matrix: Experience Factors by SSI Scales for ABPP Diplomates.

Factor	SSI.A	SSI.IPS**	SSI.TO**
Factor 1	-.12 p = .516	.12 p = .525	-.07 p = .727
Factor 2	.63 (.35-.91)* p = .000	.45 (.11-.79)* p = .013	.05 p = .807
Factor 3	.12 p = .526	.55 (.21-.88)* p = .003	.30 p = .123

*95% confidence interval.

**These columns contain first-order partial correlations controlling for the effect of theoretical orientation.

significant results in this table. First, Amount of Experience (Factor 3) is significantly related to interpersonal sensitivity (r = .55, p = .003) for Diplomates, but not for all supervisors. The relationship between these variables is significantly stronger for the Diplomates than it is for all supervisors (30.3 vs. 1.2 percent of variance accounted for). Next, Interest/Perceived Effect of Experience (Factor 2) is significantly related to both interpersonal sensitivity (r = .45, p = .013) and to attractiveness (r = .63, p < .0005), as it was for all supervisors. The second of these relationships is stronger for the Diplomates.

Evaluating Multiple Significance Tests

This is a complex issue that can only be discussed briefly here. See Appendix M for additional information.

Whenever several significance tests are conducted as part of one study, the question arises as to how to choose an appropriate type I error rate. This issue has been debated for many years and, as yet, researchers have not reached a consensus as to its solution. Some researchers believe that the same error rate per comparison (PC error rate) should be used, no matter how many significance tests are performed in each study,

while others believe that studies containing a greater number of significance tests should use a lower PC error rate so as to hold the error rate experimentwise (EW error rate) at a constant level. Neither method is clearly superior as the first increases the number of type I errors, while the second results in no additional type I errors, but at the cost of a reduction in the power of the analyses and a consequent increase in the number of type II errors.

This problem is compounded by the fact that the relative seriousness of type I and type II errors is different in different research areas. There is general agreement, for example, that type II errors are particularly dangerous in a new and developing research field. In such an area a type I error will result in more research being done which will eventually correct the error. A type II error will, however, discourage other researchers from investigating this variable and thus inhibit future investigation. Proponents of even the most conservative methods for controlling the EW error rate thus often advocate the use of the uncorrected PC error rate in the early stages of problem investigation (Petrinovich & Hardych, 1969).

Since research regarding the relationship between supervisors' experience and their supervisory styles is clearly in the early stages of problem investigation,

and since the evaluation of hypothesis 1 contains 60 significance tests; it was decided that setting a specific EW error rate would decrease the power of the analyses so much as to run too great a risk of committing type II errors, while using a PC error rate of .05 would run too great a risk of committing type I errors. Accordingly, an appropriate error rate was determined by another method which will be discussed below (Wilkinson, 1951; Brozek & Tiede; 1952; Sakoda, Cohen, & Beall, 1954).

Column 1 of Table 10 lists the PC error rates $\leq .05$ at which individual significance tests were found to be significant. Column 2 contains the number of significance tests performed. Column 3 is the number of type I errors expected, on average, experimentwise = (col. 1)(col. 2). Column 4 is the number of significant results found. Column 5 is the PC error rate adjusted for the number of significance tests performed. It estaimtes the probability that any given significant result actually represents a type I error = (col. 3/col. 4). Since the significance tests are not all independent of one another (as is assumed by this model), the probabilities given in column 5 may be higher or lower than the actual probabilities and so represent an estimate rather than an exact calculation (Block, 1960). Column 6 is the EW error rate. Only

Table 10

Correction of Per Comparison Error Rates for Hypothesis 1.

PC Error Rate	Number of Significance Tests Performed	Number of Type I Errors Expected	Number of Significant Results Found	PC Error Rate Adjusted for the Number of Significance Tests Performed	EW Error Rate
$\leq$ .0005	60	.030	10	.0030	.0296
$\leq$ .001	60	.060	12	.0050	.0583
$\leq$ .002	60	.120	13	.0092	.1132
$\leq$ .003	60	.180	15	.0120	.1675
$\leq$ .004	60	.240	16	.0150	.2138
$\leq$ .006	60	.360	17	.0212	.3031
$\leq$ .009	60	.540	18	.0300	.4187
$\leq$ .013	60	.780	19	.0411	.5439
$\leq$ .034	60	2.040	20	.1020	.8745

findings having an adjusted PC error rate of $\leq$ .05 will be considered to be significant.

This method of adjusting the PC error rates is more conservative than using unadjusted PC error rates, but less rigid than holding the EW error rate at some specific level. It is thus quite useful in studies such as this (large studies, exploring new areas) where type II errors need to be particularly avoided. A weakness of this method is that one good predictor variable tested along with many nondiscriminating variables will tend to be discounted as due to chance fluctuations. A related strength of this method is that large studies are not proscribed as long as a sufficiently high proportion of the test results are highly significant.

Study 1: Hypothesis 2

In addition to the DIS and SSI, all of the participants in study 1 also completed the Supervision Level Scale (SLS). The SLS measures how closely the supervision provided to a particular psychotherapist matches that supervisee's stage of development (the person/environment match or P/E match).

As you may recall, developmental models assume that therapists pass through stages of development as they gain experience. Since therapists in different stages have different motivations, needs, and potential

resistances, they need a changing supervision environment as they gain experience. To be maximally effective, supervision must be appropriate to the stage of development of the therapist being supervised. It was thus hypothesized that more experienced supervisors would be found to provide a level of supervision more closely corresponding to the supervisee's stage of development than would less experienced supervisors. Stated in more exact terms this becomes Hypothesis 2.

Hypothesis 2: Supervisors' experience regarding supervision is significantly related to how closely the supervision provided to a particular psychotherapist matches that supervisee's stage of development.

Preliminary Analysis

A preliminary analysis showed that there is no significant relationship (at an error rate per comparison of .05) between either supervisor gender or theoretical orientation and P/E match. There was also no significant interaction between gender and theoretical orientation. Table 11 gives the details of this analysis.

Evaluation of Hypothesis 2

The experimental hypothesis was not confirmed. The three experience factors, as well as each individual item composing these factors, were not significantly

Table 11

ANOVA of P/E MATCH by Sex and Theoretical Orientation.

Source of Variation	SS	DF	MS	F	p
Within Cells	257.46	307	.84		
Theory	.15	1	.15	.18	.670
Sex	1.61	3	.54	.64	.590
Theory by Sex	.44	3	.15	.18	.913

related to P/E match, either for all subjects or for ABPP Diplomates, when the error rate per comparison was set at .05. Table 12 and Appendix N give the detailed results of these analyses.

Study 2

Subjects

The participants of Study 2 were 11 pairs of supervisors and beginning practicum-level psychotherapists from the MSU Counseling Center and the MSU Psychological Clinic. Table 13 summarizes some of the characteristics of these supervisors as revealed by their responses on the DIS. Table 14 summarizes their training in supervision.

Reliability

The 11 supervision tapes were scored by two raters working together. After the raters had completed 23 hours of training, and before rating any experimental tapes, they independently rated a "test tape". Their level of agreement in rating this tape was measured by Kappa (Cohen, 1960) which equals the proportion of judgements in which there is agreement, after chance agreement is excluded. Kappa is a conservative estimate of agreement as all disagreements are given equal weight. The mean Kappa between the two judges was .72,

Table 12

Correlation Matrix: Experience Factors by P/E Match

Factor	P/E Match	
	All Subjects	ABPP Diplomates
Factor 1	.08 p = .163	-.09 p = .632
Factor 2	.07 p = .235	.22 p = .254
Factor 3	.01 p = .851	-.17 p = .409

Table 13

Summary of Major Demographic Variables for Study 2.

Variable	Mean/Percentage	Standard Deviation
Age	46 years	11 years
Gender	55% male	
License Status	64% state licensed or certified	
ABPP Diplomates	27%	
Theoretical orientation		
- psychodynamic	46%	
- eclectic	27%	
- cognitive and/or behavioral	9%	
- other	18%	
Degree		
- Ph.D.	64%	
- Psy.D.	0%	
- Ed.D.	9%	
- M.A.	9%	
- M.S.W.	9%	
- B.A./B.S.	9%	
Degree field		
- Clinical Psychology	36%	
- Counseling Psychology	27%	
- Psychology	27%	
- Social Work	9%	
Experience		
- As a Psychotherapist	17 years	10 years
- As a supervisor	13 years	11 years
Number of therapists supervised	59	121
Proportion of professional activity devoted to supervision	17%	18%

Table 14

Summary of Demographic Training Variables for Study 2.

	Percentage who received this type of training	Mean hours of training (excluding those who received no training of this type)
Formal supervision of supervision		
- individual	36%	36 hours
- group	18%	33 hours
- total	36%	53 hours
Other formal training regarding supervision	0%	

which represents an acceptable level of reliability for the system.

Preliminary Analysis

A preliminary analysis showed that there was no significant relationship (at an error rate per comparison of .05) between either supervisor gender or theoretical orientation and any of the dependent variables. There was also no significant interaction between gender and theoretical orientation for these variables.

Evaluation of Hypothesis 1

Hypothesis 1: Supervisors' experience regarding supervision is significantly related to the proportion of different supervisor interventions when supervising beginning practicum-level psychotherapists.

Table 15 lists the data and calculations that relate to the choice of an appropriate error rate for Study 2. It is clear from Table 15 that none of the results can be considered to be significant once the PC error rate is adjusted for the number of significance tests performed. This is not unexpected as a correlational analysis with only 11 subjects lacks sufficient power to significantly detect relationships between variables unless those relationships are much

Table 15

Correction of Per Comparison Error Rates for Study 2

PC Error Rate	Number of Significance Tests Performed	Number of Type I Errors Expected	Number of Significant Results Found	PC Error Rate Adjusted for the Number of Significance Tests Performed	EW Error Rate
$\leq$ .012	108	1.30	1	1.000	.729
$\leq$ .024	108	2.59	2	1.000	.927

stronger than what is usually found in the study of human behavior.

Table 16 lists the correlations that were significant at an unadjusted PC error rate of .05 or less. As noted above, these results can not be considered to be significant; however, they do constitute trends in the data which might reach significance in an experiment having an adequate number of subjects.

Table 16

Significant Correlations Between Experience Factors and Supervisory Interventions for Study 2.

Variable A	Variable B	r	p
Informal Study	accept/use trainee's ideas	.72 (.27-1.00)*	.012
Amount of Experience	accept/use trainee's ideas	.70 (.21-1.00)*	.024

*95% confidence interval.

DISCUSSION

Study 1: Hypothesis 1

Hypothesis 1 explored the question of whether supervisors' interpersonal style in supervision changes as they gain experience. Previous research has generally found that supervisors do not become more competent and change little in other ways as they gain experience (Worthington, 1987). This research has been limited, however, in that "experience" has always been defined either in terms of time (number of years of experience as a supervisor) or of status (degree level, licensure status, or student vs. faculty status).

Hypothesis 1: Supervisors' experience regarding supervision is significantly related to their supervisory style when supervising interns.

Study 1 examined several different variables related to supervisors' experience. A factor analysis of these variables yielded three dimensions of experience. Since Hypothesis 1 was confirmed for certain of these dimensions, but not for others, each will be discussed separately.

Amount of Experience

The first aspect of experience to be discussed is Amount of Experience (number of years of experience as a supervisor, number of therapists supervised). For all supervisors, amount of experience was not significantly related to any aspect of supervisory style. However, for ABPP Diplomates there was a significant correlation of .55 between amount of experience and interpersonal sensitivity. It is therefore possible that experience causes this select group of supervisors to become more interpersonally sensitive.

Due to the correlational, self-report, cross-sectional design of Study 1, many other interpretations of this result can not be ruled out, however. For example, more experienced supervisors, because of the era in which they were trained, may more highly value interpersonal sensitivity and thus may tend to describe themselves in this manner. Another possibility is that more interpersonally sensitive supervisors may succeed better at supervision, be more valued by their supervisees, enjoy supervision more, and thus tend to gain more experience.

Several other such interpretations could be devised. It will require further research, of different design, to confirm that this group of supervisors does become more interpersonally sensitive as they gain in

experience and to identify what it is about this group that allows experience to have this effect.

The finding that amount of experience is unrelated to supervisory style for all subjects is in accord with previous research, which has shown that supervisors generally do not become more competent, or change in other ways, as they gain experience (Worthington, 1987). It appears that mere time spent supervising does not affect the supervisory style, competence, or other attributes of most supervisors.

Why might this be so? We know that psychotherapists change and improve with experience (Worthington, 1987); and it is generally assumed in our culture that practice and effort in almost any endeavor will result in increased skill and ability. Why should the development of supervisory ability be any different?

A major factor which can reduce or eliminate the effect of experience on skill development in many areas is lack of feedback, or inaccurate feedback. One possible explanation for these results is thus that supervisors may not generally get accurate feedback from their supervisees, especially concerning their mistakes and weaknesses as supervisors.

Learning to become a psychotherapist is considered by many to be a very anxiety-producing task. Liddle (1986) has identified five potential sources of threat

and anxiety in supervision to which supervisees tend to respond with a variety of strategies designed to protect themselves. Foremost among these is the threat of a poor evaluation from their supervisor.

This threat is quite real, at least for interns, and possibly for practicum students as well. Tedesco (1982) found, in a survey of internship programs, that 2% of all interns were prematurely terminated and that this step was considered for an additional 3%. Similarly Boxley, Drew, and Rangel (1986) found that two-thirds of APA-approved internship programs had had at least one "impaired" intern within the past five years, with a 4.6% annual impairment rate. The reasons given by training directors for these poor performances were primarily emotional: personality disorders (35%), depression (31%), emotional problems (31%), and marital concerns (27%). Lack of clinical skills or academic preparation was noted only 19% of the time. Two-thirds of these programs do not adequately describe the right of due process for interns prematurely terminated or deferred from continuing, and 86% lack any appeal procedure. Since a poor evaluation may, especially for interns, have a ". . . direct and powerful influence on their future professional livelihood" (Holloway & Roehlke, 1987, p. 225), it is not surprising that some supervisees adopt a variety of strategies to reduce the

threat of receiving a poor evaluation from their supervisor.

Kadushin (1976), in his classic book regarding supervision, discussed in some detail the games that supervisees play to protect themselves. He defined a game as a series of interactions with hidden payoffs for both parties. The most effective games either tap into the supervisor's own needs, thus inducing the supervisor to play along (Kadushin, 1968; Kadushin, 1976) or present a front of apparent cooperation and involvement on the part of the supervisee (Dodge, 1982). Flattery is an example of a game possessing both of these qualities.

Subtle flattery, at least to the extent of appearing to cooperate with the supervisor without being openly critical, may occur frequently in supervision and may keep most supervisors from hearing about their weaknesses and mistakes. In summary, a psychotherapist who is not doing a good job often has a client who does not improve; while a supervisor who is not doing a good job may often have a supervisee who feels highly motivated to make the supervisor think that supervision is proceeding quite well.

The above explanation assumes that supervisors are dependent primarily upon their supervisees' feedback to know how well they are performing. How else might

supervisors evaluate their work? Three other major sources of evaluation seem clear: comparison with existing theories/descriptions of how to conduct supervision, comparison with descriptions of bad supervision, and evaluation of whether or not the supervisee is "developing" and changing in a proper direction and at a satisfactory rate. As will be discussed below, each of these methods is seriously flawed for most supervisors, leaving them prone to be highly influenced by their supervisees' feedback.

The literature is almost completely devoid of descriptions of bad supervision (Worthington, 1987); and, until about 10 years ago, there were only few and scattered materials regarding how to supervise well (Hess, 1987). More materials have since become available, but our theories and descriptions of how to conduct supervision are still inadequate for many supervisors.

Supervision theories that are specific to a single theoretical orientation vary widely in quality and usefulness. For example, several authors have devoted considerable time and effort to creating a theory of psychodynamic/psychoanalytic supervision, and supervisors of this orientation are often relatively satisfied with the material available to them. In contrast, supervisors of other orientations, especially

those of recent origin or with few adherents, may find little in the way of theory to help guide their supervision.

Supervision theories which are based upon models of therapist development are not associated with any particular theoretical orientation, but are limited in other ways (Worthington, 1987). These theories have been developed only during the past 10 years and thus are not yet sufficiently detailed and complete to provide either a comprehensive theory of how to conduct supervision or of how to evaluate the development of a specific supervisee.

Supervisors generally receive little training in how to conduct supervision (Hess & Hess, 1983; McColley & Baker, 1982; Stanton, Sanchez, & Klesges, 1981), and some researchers believe that the reason most supervisors do not change or improve with experience may be that they have not received sufficient supervision of their work as supervisors (Worthington, 1987). This position is supported by the finding that psychotherapists improve or change only with supervised experience and not with unsupervised experience (Hill, Charles, & Reed, 1981; Reising & Daniels, 1982; Wiley & Ray, 1986). Perhaps supervisors also need supervision in order to view their own work objectively or from a

different perspective and so to learn from their experience.

Study 1 is the first to examine this variable and found that hours of formal supervision of supervision is not significantly related to supervisory style, nor is it significantly related to any other measured variable (interest in supervision, frequency of reading/study regarding supervision, frequency of consultation with other supervisors, etc.). Supervision of supervision may, of course, be related to some unmeasured aspect of the subjects' work as supervisors, however, such as techniques used, areas focused upon, etc.

Another possible explanation for these results is that supervision of supervision may have been available for too short a period of time to have had much effect on the participants' interpersonal style as supervisors. Supervision of supervision is generally provided only during the internship (Hess & Hess, 1983) and may need to be extended for a longer period as supervisors gradually develop their skills. Also, the participants in Study 1 have a mean of 11 years of experience as supervisors; therefore, on average, any supervision of their work as supervisors occurred some time ago. The influence of that supervision may thus have been diluted by time and intervening experiences.

Lastly, it is possible that supervision of supervision, as practiced with this sample of supervisors, was simply not very effective. Supervision for supervisors has generally been neglected, both in the literature and in practice (Hess & Hess, 1983); and we presently know very little about how to aid a supervisor in becoming more effective.

Informal Study

The second aspect of supervisors' experience to be discussed is Informal Study (frequency of reading and study regarding supervision, frequency of informal consultation with other supervisors regarding supervisory issues). For all subjects, informal study was significantly related to interpersonal sensitivity (r = .26). It is therefore possible that informal study leads supervisors to become more interpersonally sensitive. This interpretation of the results seems reasonable as informal study is voluntary, carried on over the course of one's career, and implies that the supervisor is trying to improve his or her skills regarding supervision.

Of course, as previously mentioned, the design of this study means that several other interpretations of this result can not be ruled out. For example, supervisors who are more interpersonally sensitive may

more accurately perceive their lack of effectiveness in supervision and thus may engage in more informal study in an attempt to improve their performance. More research is clearly needed to investigate such alternative interpretations and to specify what specific aspects of informal study are helpful to supervisors at different stages of development.

Interest/Perceived Effect of Experience

The last aspect of supervisors' experience to be discussed is Interest/Perceived Effect of Experience (interest in supervision, perceived effect of psychotherapy experience on supervisory style, perceived effect of experience as a supervisor on supervisory style). For all participants, this factor (as well as each of its three components) was significantly related to both interpersonal sensitivity (r = .34) and to attractiveness (r = .23).

Supervisors who thought that their experience had greatly influenced their supervisory style described themselves as being both more interpersonally sensitive $F(1,299) = 9.47$, $p = .002$, and more attractive $F(1,299) = 8.95$, $p = .003$, when supervising interns. (Appendix O gives the means and standard deviations of SSI.IPS and SSI.A broken down by perceived effect of experience.) This indicates that experience may lead

supervisors to become more interpersonally sensitive and attractive. However, even for these supervisors, there was no significant relationship between amount of experience and supervisory style.

It seems that amount of experience was unimportant even for those supervisors who reported that they had been highly influenced by it. Perhaps the effect of experience is dependent upon the supervisor's stage of development, with inexperienced supervisors being strongly influenced by their first experiences as supervisors. Another possibility is that there are "critical incidents" in a supervisor's experience, and it is these isolated incidents which influence supervisory style.

Supervisors who were interested in supervision described themselves as being both more attractive and more interpersonally sensitive when supervising interns. It is unknown whether interest in supervision leads a supervisor to become more attractive and more interpersonally sensitive as a supervisor or whether supervisors with these traits tend to become more interested in supervision.

For ABPP Diplomates, Interest/Perceived Effect of Experience was significantly related to both interpersonal sensitivity (r = .45) and to attractiveness (r = .63), as it was for all supervisors.

The reason why this factor was more strongly related to supervisory style for Diplomates is unknown.

Limitations of Study 1

One limitation of this study concerns its generalizability. All subjects were psychologists supervising in agencies having APA-approved internship training programs who were willing to fill out and return the questionnaires. There are thus at least three potential problems in generalizing the results. First, since willingness to complete the materials may be related to one's characteristics as a supervisor, these results may not accurately represent the 48% of supervisors who declined to participate in the study. Second, since profession (psychiatry, social work, etc.) may be related to one's characteristics as a supervisor, these results can only be generalized to other professions with a good deal of caution.

Lastly, agencies with APA-approved internship programs are usually interested in training and professional excellence; they may thus tend to seek out and to attract well-trained psychologists who are interested in training and supervision. The results of Study 1 may thus not be entirely characteristic of supervision as practiced in agencies without such training programs.

In addition, Hess and Hess (1983), in a survey of the same agencies sampled by Study 1, found that highly experienced clinicians are underrepresented as supervisors, indicating to them that the more experienced clinicians may be working in private practice or in administration and/or that there may be a great many inexperienced clinicians available due to the growth of Ph.D. graduates reported by Korchin (1976). Highly experienced supervisors may thus be underrepresented by these results. A restriction in the range of supervisor experience would also tend to reduce the size of the correlations between supervisor experience and supervisory style.

A second potential limitation involves the use of self-report measures. Subjects described their supervisory style, and these descriptions are subject to the inaccuracy associated with self-perception. This type of inaccuracy is often, but not always, caused by subjects' desire to perceive and/or to represent themselves in a favorable light. The SSI minimizes the possibility of this type of distortion since 24 of its 25 scored items are not significantly related to social desirability (Friedlander & Ward, 1984).

A third limitation is that Study 1 is subject to the problems encountered whenever a cross-sectional design is used to study a developmental phenomenon.

What appears to be change over time may actually represent differences in subpopulations. A longitudinal study, in contrast, could assess change in supervision as the same group of supervisors gains experience.

Finally, a correlational design shows the relationship between variables but can not prove causality. Study 1 thus can not show that experience causes change in supervisory style, but only that the two variables are related.

Next Steps for Research in this Area

The measurement of experience in research investigating changes in supervision as supervisors gain experience must move beyond the definitions that have been used in the past to include other aspects of supervisors' experience. While Study 1 has identified some variables and dimensions of supervisor experience which are related to supervisory style, we do not yet know what other important variables and dimensions of experience there may be.

The SSI focuses on the interpersonal and relationship aspects of supervision. While these are clearly very important, other aspects of supervisors' functioning (such as focus/goals of supervision, techniques used, etc.) remain largely unexplored.

Since it now seems likely that supervisory style changes as supervisors gain certain types of experience, the question arises of whether these supervisors are also becoming more competent. We need to study how a variety of experience measures are related to supervisor performance.

Lastly, the results concerning ABPP Diplomates show that we may learn much by studying selected subgroups of supervisors. Are Diplomates exceptionally competent supervisors; and, if so, how did they achieve this?

Study 1: Hypothesis 2

Hypothesis 2 explored the question of whether experienced supervisors provide a supervision environment more congruent with a supervisee's stage of development than do inexperienced supervisors. No published studies have as yet addressed this issue.

The Supervision Level Scale (SLS) (Wiley & Ray, 1986) was used to measure the congruence of supervisee developmental level with the supervision environment provided to that supervisee. In the first part of the SLS, the supervisor described a specific supervisee using a 7-point Likert-type scale and 20 items representing Stoltenberg's (1981) four levels of therapist development. These items are scored so as to place that supervisee in one of Stoltenberg's four

levels of therapist development (Level 1, 2, 3, or 4). In the second part of the SLS, the supervisor described the supervision that had been provided to that supervisee using 20 items describing the ideal environments for therapists at each level. These items are scored so as to classify the supervision provided as being most appropriate to a therapist in one of Stoltenberg's 4 levels of therapist development (Level 1, 2, 3, or 4). Congruency of therapist and supervision environment was then determined by subtracting the environment level from the therapist level and taking the absolute value. Four scores were thus possible (0, 1, 2, 3) with a score of 0 representing the highest congruency. This final score was named the person/environment match or P/E Match.

Hypothesis 2: Supervisors' experience regarding supervision is significantly related to how closely the supervision provided to a particular psychotherapist matches that supervisee's stage of development.

The hypothesis was not confirmed. The three experience factors, as well as each individual item composing these factors, were not significantly related to P/E match, either for all subjects or for ABPP Diplomates. In addition, P/E match was not

significantly related to supervisor gender, theoretical orientation, or any other measured variable.

This result may indicate that, contrary to Stoltenberg's (1981) theory, congruence of supervision environment with supervisee's developmental level is relatively unimportant for effective supervision. As you may recall, Stoltenberg assumed that the characteristics of the supervision provided must be appropriate to the characteristics (developmental level) of the supervisee for supervision to be most effective. This interpretation is supported by Wiley and Ray's (1986) finding that P/E match is not significantly related to either supervisors' or supervisees' ratings of satisfaction with supervision.

On the other hand, it is possible that Stoltenberg's (1981) Counselor Complexity Model contains large errors regarding either the levels of therapist development and/or the ideal supervisory environments postulated for therapists at each level. The SLS is so closely derived from Stoltenberg's theory that such theoretical errors could make it appear that the congruency of supervision environment with supervisees' developmental level is unimportant for effective supervision.

Next Steps for Research in this Area

It would be useful to operationalize both supervisee developmental level and the level of the supervision environment in a way which is not dependent upon the detailed accuracy of Stoltenberg's (1981) Counselor Complexity Model. In addition, several different aspects of supervisor experience should be measured whenever this variable is of interest.

Study 2

Study 2 explored the question of whether supervisor experience is related to supervisors' actual behavior in supervision. No published studies have as yet addressed this issue.

Hypothesis 1: Supervisors' experience regarding supervision is significantly related to the proportion of different supervisor interventions when supervising beginning practicum-level psychotherapists.

The hypothesis was not confirmed. Table 16 shows that none of the results can be considered to be significant once the error rate per comparison is adjusted for the number of significance tests performed. This result is not unexpected as Study 2 has too few subjects (n = 11) to significantly detect relationships between variables unless those relationships are much

stronger than what is usually found in the study of human behavior.

One trend of interest is that both of the correlations significant at an unadjusted error rate per comparison of $\leq .05$ were between experience factors and the proportion of supervisor statements which fall into the category of accepting and/or using the supervisee's preceeding idea. The proportion of supervisor statements falling into this category may thus be particularly prone to increase as supervisors gain experience.

Next Steps for Research in this Area

Research investigating the effects of supervisor experience must eventually move beyond the use of self-report measures and analogue studies to examine the actual behavior of supervisors engaged in supervision.

APPENDICES

APPENDIX A

Expected Counselor Characteristics and Appropriate Environments

NOTE: Taken from "Approaching Supervision from a Developmental Perspective: The Counselor Complexity Model", by C. Stoltenberg, 1981, Journal of Counseling Psychology, 28(1), p. 60.

Expected Counselor Characteristics and Appropriate Environments

Counselor level	Counselor characteristics	Optimal environments
1	Dependent on supervisor Imitative, neurosis bound, lacking self-awareness and other awareness, categorical thinking with knowledge of theories and skills, but minimal experience	Encourage autonomy within normative structure. Supervisor uses instruction, interpretation, support, awareness, training, and exemplification; structure is needed
2	Dependency-autonomy conflict Increasing self-awareness, fluctuating motivation, striving for independence, becoming more self-assertive and less imitative	Highly autonomous with low normative structure. Supervisor uses support, ambivalence clarification, exemplification, and less instruction; less structure is necessary
3	Conditional dependency Personal counselor identity is developing with increased insight, more consistent motivation, increased empathy, and more differentiated interpersonal orientation	Autonomous with structure provided by the counselor. Supervisor treats counselor more as a peer with more sharing, mutual exemplification, and confrontation

Counselor level	Counselor characteristics	Optimal environments
4	Master counselor Adequate self- and others awareness, insightful of own strengths and weaknesses, willfully interdependent with others, and has integrated standards of the profession with personal counselor identity	Counselor can function adequately in most environments. Supervision now becomes collegial if continued

APPENDIX B

Demographic Information Sheet (DIS)

Demographic Information Sheet

1. Age _____ Sex _____

2. Highest degree attained _____ Field _____
   Year _____ Institution _____

3. State certified or licensed? yes_____ no_____ Field_____

4. ABPP diplomate? yes_____ no_____

5. Which of the following best describes your theoretical orientation to therapy?
   _____ psychodynamic
   _____ behavioral
   _____ cognitive
   _____ humanistic
   _____ eclectic
   _____ other (please specify _____)

6. Do you ever use a theoretical orientation other than the one you checked in question 5? yes_____ no_____

7. Number of years of experience as a therapist.
   _____ years of predoctoral experience
   _____ years of postdoctoral experience

8. Number of years supervising individuals regarding psychotherapy/counseling cases.
   _____ years of predoctoral experience
   _____ years of postdoctoral experience

9. Approximate number of supervisees you have individually supervised at each of the following training levels.
   _____ beginning practicum
   _____ advanced practicum
   _____ intern
   _____ postdoctoral
   _____ other (please specify _____)

10. Interest in supervision (circle appropriate number).

1	2	3	4	5	6	7
very low			moderate			very high

11. What percentage of your current work is devoted to:
    conducting individual supervision _____%
    conducting group supervision _____%

12. If the task of supervision were not required by your position, would you continue to include it in your professional activities?

1	2	3	4	5	6	7
definitely no			undecided			definitely yes

(PLEASE CONTINUE ON OTHER SIDE)

13. How much has your own personal experience as a therapist influenced your practice when supervising individuals?

1	2	3	4	5	6	7
no effect			moderate effect			very great effect

14. Have you ever received any formal supervision of your work supervising individuals?
yes_____ no_____

14a. If yes, approximately how many hours of this type of supervision did you receive?
_____ individual supervision of supervision
_____ group supervision of supervision

14b. If yes, how much has this supervision influenced your practice when supervising individuals?

1	2	3	4	5	6	7
no effect			moderate effect			very great effect

15. Have you ever received any other formal training in conducting individual supervision? yes_____ no_____

15a. If yes, please note the type and approximate number of hours of such training below.
_____ seminars
_____ classes
_____ other (please specify _____)

15b. If yes, how much has this other formal training influenced your practice when supervising individuals?

1	2	3	4	5	6	7
no effect			moderate effect			very great effect

16. To what extent have you engaged in informal study/consultation regarding your work supervising individuals?

	never		seldom		monthly		weekly
reading/study	1	2	3	4	5	6	7
consultation with .. other supervisors	1	2	3	4	5	6	7

16a. How much has this informal study/consultation influenced your practice when supervising individuals?

1	2	3	4	5	6	7
no effect			moderate effect			very great effect

17. How much has your own personal experience as an individual supervisor influenced your practice when supervising individuals?

1	2	3	4	5	6	7
no effect			moderate effect			very great effect

APPENDIX C

Supervision Level Scale

SUPERVISION LEVEL SCALE

Please choose a specific supervisee to describe below. The following items are to be rated on a scale from 1 to 7 in response to the stem "My supervisee..." Please respond keeping ONLY the supervisee chosen in mind.

1	2	3	4	5	6	7
Absolutely untrue	**Usually or for the most part untrue**	**More untrue than true**	**A mix of both or can't decide**	**More true than untrue**	**Usually or for the most part true**	**Absolutely true**

Supervisee's training level (choose one): beginning practicum _____
advanced practicum _____ intern _____ postdoctoral _____

MY SUPERVISEE

___ 1. has a consistent and firm sense of confidence about his/her counseling skills even when challenged by clients, supervisors, and colleagues.

___ 2. usually has a firm sense of confidence about his/her counseling skills, although he/she is shaken when challenged by clients, supervisors, and/or colleagues.

___ 3. is inconsistently aware of his/her strengths, weaknesses, motivations, neurotic needs, etc. and their impact on clients.

___ 4. nearly always looks to others for ideas about how he/she should behave as a counselor.

___ 5. is consistently aware of his/her strengths, weaknesses, motivations, neurotic needs, etc. and is able to use them as resources during counseling sessions.

___ 6. usually lacks confidence in present counseling skills and is overwhelmed by own weaknesses.

___ 7. clearly understands a broad range of limitations of counseling, including the limits of counseling as a treatment *per se*, and has essentially completed integrating this knowledge into a firm sense of professional identity.

___ 8. is clearly aware of a broad range of limitations of counseling, including the limits of counseling as a treatment *per se*, and is struggling to integrate this with his/her sense of self as a professional.

___ 9. has very little awareness of his/her strengths, weaknesses, motivations, neurotic needs, etc. and their impact on clients.

___10. is developing an inner sense of self as a counselor but frequently looks to others for ideas about how he/she should behave as a counselor.

___11. is prone to readily identify with a theoretical school or individual practitioner without thorough consideration.

___12. has essentially completed his/her sense of self as a counselor and integrated it with his/her sense of self as a person.

___13. sees counseling as a very powerful instrument but is becoming vaguely aware and uneasy about a few limitations of counseling, such as the inappropriateness of counseling for some clients and/or problems.

___14. has a well developed sense of self as a counselor, but is only beginning to integrate it with his/her sense of self as a person.

___15. is consistently aware of his/her strengths, weaknesses, motivations, neurotic needs, etc. and their impact on clients, but is only beginning to develop the capacity to use them as resources during the counseling session.

___16. tends to regard counseling as all-powerful.

___17. views clients from a variety of rather thoroughly examined perspectives and is testing out the goodness of fit of an internalized theoretical framework.

___18. is committed to a theoretical framework or composite which is internalized, integrated with his/her counseling behavior, and can be articulated.

___19. characteristically fluctuates between feeling confident and feeling very inadequate about present counseling skills.

___20. is beginning to view clients from a variety of perspectives and is becoming aware of a need to develop an internalized theoretical framework.

___21. is enjoyable to work with.

(PLEASE CONTINUE ON OTHER SIDE)

The following items are to be rated on a scale from 1 to 7 in response to the stem "In our supervision sessions..." Please respond keeping ONLY supervision sessions with the same supervisee just described in mind.

1	2	3	4	5	6	7
Absolutely untrue	**Usually or for the most part untrue**	**More untrue than true**	**A mix of both or can't decide**	**More true than untrue**	**Usually or for the most part true**	**Absolutely true**

IN OUR SUPERVISION SESSIONS:

___ 1. my role is that of a mentor dealing with resolution of the personal and professional dilemmas of my supervisee, and an instructor on rare occasions.

___ 2. I focus on establishing my supervisee's sense of confidence and dealing with the feelings surrounding the development of a professional style and/or identity.

___ 3. I focus on my supervisee's applying skills and techniques learned in a classroom to a counseling situation.

___ 4. my role is moving away from that of a directive instructor, encouraging my supervisee to try out and expand the skills he/she has already developed.

___ 5. I am merging confrontative behaviors with a primarily supportive style.

___ 6. I use relatively equal amounts of support and confrontation.

___ 7. I help my supervisee deal with the feelings involved in integrating and consolidating his/her already developed personal and professional identities.

___ 8. I most often serve as a directive instructor and model, providing readings, examples, opportunities for observation, and didactic instruction.

___ 9. I focus heavily on helping my supervisee to clarify and deal with his/her inner feelings and/or ambivalence toward both clients and me.

___10. my supervisee is essentially a fully independent professional.

___11. developing my supervisee's basic skills in strategizing and independent decision making is one of my major objectives.

___12. my supervisee is almost always dependent on me for structure, advice, direction, and rules.

___13. my supervisee is unaware of many of the feelings he/she has in counseling and supervision and I focus on raising his/her awareness of them.

___14. my supervisee is almost always completely independent, but on rare occasions such as emergencies he/she falls back into dependence on me.

___15. the much subtler aspects of counseling such as timing and orchestrating receive much attention.

___16. my supervisee consistently fluctuates between being dependent on and independent of me.

___17. I serve primarily as a collegial consultant.

___18. my supervisee is unable to handle much confrontation, hence I draw almost solely on supportive behaviors.

___19. I emphasize my supervisee's conceptualization of cases in relation to each other.

___20. there is rarely a need for me to support or confront my supervisee.

___21. I sense that my supervisee and I have a good working relationship.

APPENDIX D

Supervision Level Scale Scoring Sheet

SUPERVISION LEVEL SCALE SCORING SHEET

SURVEY CODE NUMBER_____

Supervisee Level _____	I	II	III	IV
Row A Degree of Confidence in Present Counseling Skill	6. _____	19. _____	2. _____	1. _____
Row B Insight about Impact on Clients	9. _____	3. _____	15. _____	5. _____
Row C Approach to a Theoretical Framework	11. _____	20. _____	17. _____	18. _____
Row D Sense of Professional Identity	4. _____	10. _____	14. _____	12. _____
Row E Awareness of Limitations of Counseling	16. _____	13. _____	8. _____	7. _____
21 _____ P-Level Sums				

Predominant P Level

Supervision Environment Level				
Row A Role of Supervisor	8. _____	4. _____	1. _____	17. _____
Row B Affective Focus of Supervision	13. _____	9. _____	2. _____	7. _____
Row C Cognitive/Skills Focus of Supervision	3. _____	11. _____	19. _____	15. _____
Row D Dependency in Supervision	12. _____	16. _____	14. _____	10. _____
Row E Role of Support and Confrontation	18. _____	5. _____	6. _____	20. _____
21 _____ E-Level Sums				

P/E MATCH (P Level – E Level) = _____

Predominant E Level

APPENDIX E

Elaboration of the Counselor Complexity Model: Supervisee Levels and Optimal Supervision Environments

NOTE: Taken from "Counseling Supervision by Developmental Level", by M. O. Wiley and P. Ray, 1986, Journal of Counseling Psychology, 33(4), p. 441-442.

An Elaboration of the Counselor Complexity Model: Supervisee Levels

Category	Supervisee level (P-level)			
	1	2	3	4
Degree of confidence in present counseling skill	Usually lacks confidence in present counseling skills and is overwhelmed by own weaknesses (S)	Characteristically fluctuates between feeling confident and feeling very inadequate about present counseling skills (S)	Usually has a firm sense of confidence about his/her counseling skills, although he/she is shaken when challenged by clients, supervisors, and/or colleagues	Has a consistent and firm sense of confidence about his/her counseling skills even when challenged by clients, supervisors, and colleagues (S)
Insight about impact on clients	Has very little awareness of his/her strengths, weaknesses, motivations, neurotic needs, etc. and their impact on clients (S)	Is inconsistent in awareness of his/her strengths, weaknesses, motivations, neurotic needs, etc. and their impact on clients (S)	Is consistently aware of his/her strengths, weaknesses, motivations, neurotic needs, etc. and their impact on clients, but is only beginning to develop the capacity to use them as resources during the counseling sessions	Is consistently aware of his/her strengths, weaknesses motivations, neurotic needs, etc. and is able to use them as resources during counseling sessions (S)
Approach to a theoretical framework	Is prone to readily identify with a theoretical school or individual practitioner without thorough consideration (S)	Is beginning to view clients from a variety of perspectives and is becoming aware of a need to develop an internalized theoretical framework (S)	Views clients from a variety of rather thoroughly examined perspectives and is testing out the goodness of fit of an internalized theoretical framework (S)	Is committed to a theoretical framework or composite which is internalized, integrated with his/her counseling behavior, and can be articulated
Sense of a professional identity	Nearly always looks to others for ideas about how he/she should behave as a counselor (S)	Is developing an inner sense of self as a counselor but frequently looks to others for ideas about how counselor (S)	Has a well developed sense of self as counselor, but is only beginning to integrate it with his/her sense of self as a person (S)	Has essentially completed his/her sense of self as a counselor and integrated it with his/her sense of self as a person (S)
Awareness of limitation of counseling	Tends to regard counseling as all-powerful (S)	Sees counseling as a very powerful instrument but is becoming vaguely aware and uneasy about a few limitations of counseling, such as the inappropriateness of counseling for some clients and/or problems	Is clearly aware of a broad range of limitations of counseling, including the limits of counseling as a treatment per se, and is struggling to integrate this with his/her sense of self as a professional	Clearly understands a broad range of limitations of counseling, including the limits of counseling as a treatment per se, and has essentially completed integrating this knowledge into a firm sense of professional identity (S)

NOTE: Cells identified as (S) have been taken from "Approaching Supervision From a Developmental Perspective: The Counselor Complexity Model" by C. Stoltenberg, 1981, Journal of Counseling Psychology, 28, p. 60. Copyright 1981 by the American Psychological Association, Inc. Used by permission.

An Elaboration of the Counselor Complexity Model: Supervision Environments

Category	Supervision environment (E-level)			
	1	2	3	4
Role of supervisor	Supervisor most often serves as a directive instructure and model, providing readings, examples, opportunities for observation, and didactic instruction (S)	Supervisor's role is moving away from that of a directive instructor, encouraging supervise to try out and expand the skills already developed (S)	Supervisor's role is that of mentor dealing with resolution of the personal and professional dilemmas of supervisee, and an instructor on rare occasions (S)	Supervisor is primarily a collegial consultant (S)
Affective focus of supervision	Supervisee is unaware of many of the feelings he/she has in counseling and supervision and supervisor focuses on raising awareness of them (S)	Supervisor focuses heavily on helping supervisee to clarify and deal with inner feelings and/or ambivalence toward both clients and supervisor (S)	Supervisor focuses on establishing supervisee's sense of confidence and dealing with the feelings surrounding the development of a professional style and/or identity (S)	Supervisor helps supervisee deal with the feelings involved in integrating and consolidating his/her already developed personal and professional identities
Cognitive/skills focus of supervision	Supervisor focuses on supervisee's applying skills and techniques learned in a classroom to a counseling situation (S)	Developing supervisee's basic skills in strategizing and independent decision making is one of the major objectives	Supervisor emphasizes supervisee's conceptualization of cases in relation to each other	The much subtler aspects of counseling such as timing and orchestrating receive much attention
Dependency in supersion	Supervisee is almost always dependent for structure, advice, directions, and rules (S)	Supervisee fluctuates between being dependent and independent of supervisor consistently (S)	Supervisee is almost always completely independent, but on rare occasions such as emergencies he/she falls back into dependence on supervisor (S)	Supervisee is essentially a fully independent professional (S)
Role of support and confrontation	Supervisee is unable to handle much confrontation, hence supervisor draws almost solely on supportive behaviors (S)	Supervisor merging confrontative behaviors with primarily supportive style	Supervisor uses relatively equal amounts of support and confrontation (S)	There is rarely a need to support or confront supervisee

NOTE: Cells identified as (S) have been taken from "Approaching Supervision From a Developmental Perspective: The Counselor Complexity Model" by C. Stoltenberg, 1981, Journal of Counseling Psychology, 28, p. 60. Copyright 1981 by the American Psychological Association, Inc. Used by permission.

APPENDIX F

Supervisory Styles Inventory, and
Supervisory Styles Inventory Scoring Sheet

Supervisory Styles Inventory

Please indicate your perception of your style as a supervisor when individually supervising interns regarding their psychotherapy/counseling cases. For each of the following descriptors, circle the number on the scale, from 1 to 7, which best reflects your view of yourself.

		1 not very	2	3	4	5	6	7 very
1.	goal-oriented	1	2	3	4	5	6	7
2.	perceptive	1	2	3	4	5	6	7
3.	concrete	1	2	3	4	5	6	7
4.	explicit	1	2	3	4	5	6	7
5.	committed	1	2	3	4	5	6	7
6.	affirming	1	2	3	4	5	6	7
7.	practical	1	2	3	4	5	6	7
8.	sensitive	1	2	3	4	5	6	7
9.	collaborative	1	2	3	4	5	6	7
10.	intuitive	1	2	3	4	5	6	7
11.	reflective	1	2	3	4	5	6	7
12.	responsive	1	2	3	4	5	6	7
13.	structured	1	2	3	4	5	6	7
14.	evaluative	1	2	3	4	5	6	7
15.	friendly	1	2	3	4	5	6	7
16.	flexible	1	2	3	4	5	6	7
17.	prescriptive	1	2	3	4	5	6	7
18.	didactic	1	2	3	4	5	6	7
19.	thorough	1	2	3	4	5	6	7
20.	focused	1	2	3	4	5	6	7
21.	creative	1	2	3	4	5	6	7
22.	supportive	1	2	3	4	5	6	7
23.	open	1	2	3	4	5	6	7
24.	realistic	1	2	3	4	5	6	7
25.	resourceful	1	2	3	4	5	6	7
26.	invested	1	2	3	4	5	6	7
27.	facilitative	1	2	3	4	5	6	7
28.	therapeutic	1	2	3	4	5	6	7
29.	positive	1	2	3	4	5	6	7
30.	trusting	1	2	3	4	5	6	7
31.	informative	1	2	3	4	5	6	7
32.	humorous	1	2	3	4	5	6	7
33.	warm	1	2	3	4	5	6	7

SUPERVISORY STYLES INVENTORY SCORING SHEET

SURVEY CODE NUMBER_____

	FACTORS	
Attractive	Interpersonally Sensitive	Task Oriented
15. _____	2. _____	1. _____
16. _____	5. _____	3. _____
22. _____	10. _____	4. _____
23. _____	11. _____	7. _____
29. _____	21. _____	13. _____
30. _____	25. _____	14. _____
33. _____	26. _____	17. _____
/7	28. _____	18. _____
	/8	19. _____
		20. _____
		/10
A = _____	IPS = _____	TO = _____

APPENDIX G

Letter to Chief Psychologist/Psychology Directors, Response Form, and Follow-up Letter

We are writing to solicit the participation of your agency in a research project being undertaken in the area of psychotherapy/counseling supervision. This research investigates the developmental process that supervisors go through as they mature, for the purpose of enabling our profession to effectively support, advise, and train supervisors.

We are asking your permission to contact the supervisors in your agency. Your consent only allows us to contact your staff. It does not obligate them to participate in this research project.

If you consent, we will individually contact supervisors by letter to solicit their participation. A response postcard will be enclosed with which each may agree to participate, decline to participate, or ask for more information. Also enclosed will be a demographic information sheet and two instruments which measure supervisory style. These questionnaires take about 30 minutes to complete.

To assure the anonymity of your staff and agency, the response postcard will be returned separately from the other materials. There will be no identifying names or numbers on the demographic information sheet or on the instruments. All responses and results will be treated with strict confidence.

Please use the enclosed response form and return envelope to give us your decision. If you consent, we also ask that you attach a list of the names and addresses (if different from the agency address) of <u>all</u> psychologists who are currently supervising practicum students, interns, or postdoctoral therapists on an individual basis in your agency.

If you would like more information before deciding, note this on the response form, return it, and you will be contacted by phone. You will receive an abstract of the results, if desired, even if your agency does not participate in this research.

We thank you for your time and interest in considering our request. It would be most helpful if you could return the response form

Sincerely,

Douglas Mark Hardy, M.A.
Graduate Student in
Clinical Psychology

Norman Abeles, Ph.D.
Professor

Chief Psychologist/Psychology Director Response Form

Name _____
(please print)

1. Would you like an abstract of the results of this research?
_____ yes _____ no

2. Please check one

_____ I permit you to contact psychology supervisors working in our agency to request their participation in your research project.

_____ I would like more information before making a decision. Please contact me.

_____ Our participation in this research project is not possible at this time.

3. If you have agreed, please list or attach a list of the names and addresses (if different from the agency address) of all psychologists who are currently supervising practicum students, interns, or postdoctoral therapists on an individual basis in your agency.

Name _____ Mailing address _____

(attach additional sheets if necessary)

We recently sent you a letter and response form regarding our research project investigating the developmental process that supervisors go through as they mature. We have not yet heard from you. In case you have misplaced the original materials, copies are enclosed.

Please return the enclosed response form to us before December 7 so that we can proceed with our project. If you have already mailed your response form, you may disregard this notice.

Sincerely,

Douglas Mark Hardy, M.A.
Graduate Student in
Clinical Psychology

Norman Abeles, Ph.D.
Professor

APPENDIX H

Letter to Supervisors, Response Postcard, and Follow-up Letter

We are writing to solicit your participation in a research project being undertaken in the area of psychotherapy/counseling supervision. This research investigates the developmental process that supervisors go through as they mature, for the purpose of enabling our profession to effectively support, advise, and train supervisors.

Enclosed are:

A response postcard.
A demographic information sheet.
Two instruments which measure both general and specific supervisory style.
A return envelope.

These materials take about 30 minutes to complete and will stimulate you to think about your supervisory style as well as your attitudes toward supervision.

To assure your anonymity, the response postcard will be returned separately from the other materials. There will be no identifying names or numbers on the demographic information sheet or on the instruments. All responses and results will be treated with strict confidence. Your participation is voluntary. You may decline to participate or discontinue your participation at any time without penalty. Your return of the completed materials constitutes your informed consent to participate in this research.

If you wish to participate, check the appropriate line on the response postcard and mail the card to us, under separate cover, at the same time as you return the completed materials. The instruments are self-explanatory or have directions attached. Please feel free to contact Mark Hardy at 517-487-5231 (collect) if you have any questions.

If you would like more information, check the appropriate line on the response postcard, return it, and you will be contacted by phone.

If you do not wish to participate, or if you have never provided supervision to individuals, check the appropriate line on the response postcard and return it. Discard the other materials. You will receive an abstract of the results, if requested, even if you do not participate in this research.

We thank you for your time and interest in considering our request. It would be most helpful if you could return the postcard and materials by March 28.

Sincerely,

Douglas Mark Hardy, M.A.
Graduate Student in
Clinical Psychology

Norman Abeles, Ph.D.
Professor

Name _____
(please print)

1. Would you like an abstract of the results of this research? _____ yes _____ no

2. Please check one. Thank you!
   _____ I agree to participate in this research and am mailing the completed materials to you under separate cover.
   _____ I would like more information before making a decision. Please contact me.
   _____ I have never provided psychotherapy/counseling supervision to individuals ans so can not participate.
   _____ I am not able to participate in this research at this time.

We recently sent you a letter, three instruments, and a response postcard soliciting your participation in our research project, which investigates the developmental process that supervisors go through as they mature. We have not yet heard from you. In case you have misplaced the original materials, copies are enclosed.

Please return the instruments and/or response postcard to us by April 18 so that we can proceed with our project. If you have already mailed your materials, you may disregard this notice.

Sincerely,

Douglas Mark Hardy, M.A.
Graduate Student in
Clinical Psychology

Norman Abeles, Ph.D.
Professor

APPENDIX I

Elaboration of Blumberg's Categories

Elaboration of Blumberg's Categories

Supervisor Categories:

1. Support Inducing Communication

   A. Encouragement (e.g. good, fine, OK, continue, I'm interested)

   B. Acceptance and/or clarification of feelings or emotional attitude (e.g. bored, excited, pleased) in a nonthreatening way. May refer to a feeling in the immediate encounter, as a recollection or as a prediction. May be stated as a reflection or as a inquiry. RULE: THE SUPERVISOR MUST LITERALLY NAME OR OTHERWISE DESIGNATE (e.g. pronoun) THE FEELING FOR IT TO BE CODED 1.

   C. Self-disclosure of a feeling or attitude or an event of a personal nature in order to promote the relationship.

   D. Tension-releasing behavior (e.g. laughter, playful satire, joke, humor in general).

2. Praise

   A. Direct statement of praise for trainee action, thought, or behavior. Genuine praise is distinguished from superficial verbal habits (e.g. um hm, right, etc. as they occur while the trainee is speaking or as a perfunctory comment at the beginning of a statement) the latter are NOT scored. Generally genuine praise takes longer and will demand more than one code i.e. 2,2, etc. A rule of thumb is the supervisor will include an extension of the praise which explains what the trainee did well, e.g. . . . because. . .

3. Accepts or Uses Trainee's Ideas

   A. Acknowledging or clarifying trainee's ideas by repeating the nouns and logical connectives just expressed.

   B. Modifying the idea, rephrasing it, or conceptualizing it in the supervisor's own words.

   C. Applying the idea, using it to reach an inference or taking the next step in a logical analysis of a problem.

   D. Comparing the idea, drawing a parallel between the trainee's idea and another idea which may or may not be the trainee's idea.

   E. Summarizing several ideas the trainee has presented.

   These forms of accepting and using the trainee's ideas may take the form of questions i.e. a supervisor's question based on a trainee's idea.

   Problems arise in determining when the supervisor stops using the trainee's idea and begins to introduce his/her own ideas i.e. distinguishing between categories 3 and 5, 8 and 9. A criterion to use is if you think that the trainee could no longer recognize the idea as the one they presented then score as 5, 8, or 9. You therefore may begin to score 3,3,3, and then shift to 8,8, as the supervisor begins to present his/her own ideas.

4. Asks for Information

   A. Factual not concerned with opinion or suggestions.

   B. Asks for clarification of content or procedure, with the intent that the trainee respond. Therefore this would NOT include rhetorical questions or questions which serve to criticize (e.g. Do you really want to approach it that way? Category 10).

C. May not take the form of a grammatical question statement and still be coded as 4, (e.g. Pardon?)

A common informational question in the exp'tal data is inquiring about the content of the videotaped counseling session (e.g. Did she say that she was angry with her boyfriend in the tape?)

5. Gives Information

A. Factual not concerned with opinions or suggestions.

B. Gives clarification about content of supervision session, or client videotape or a particular procedure to be followed (e.g. you are expected to see the client next seek since she has been referred to you).

6. Asks for Opinions

A. Asks the trainee to analyze or evaluate something that has occurred, is occurring or may occur in the counseling session, the client videotape or the supervision interaction.

B. Includes general reference to "feelings or attitudes" i.e. speculation of how the trainee might feel in a particular situation or how they felt in a particular situation. Note: if the supervisor then refers to a specific feeling after the general reference the interchange is coded 6, 1.

7. Asks for Suggestions

A. Action orientation past, present or future. Supervisor asks the trainee to think about ways of doing things or ways of doing things differently in the counseling situation or in the supervision interaction.

B. Asks how the supervisor and trainee might work together.

C. Supervisor role-playing as the client is asking the trainee to suggest a response i.e. this is a implicit suggestion.

8. Gives Opinions

   A. Supervisor evaluates or analyzes a situation in the counseling session or the supervision interaction that did, is or may occur.

   B. Difficulty arises in shifting between 3 and 8, or between 3 and 6. i.e. the supervisor may start with the trainee's ideas and then shift to injecting his/her own ideas while building on the trainee's ideas (code 3,8); or the supervisor may start to ask the trainee for his/her opinion and in the middle of the discourse give their own opinion and then finish up the question (code 6 only if it is clear that the supervisor is only providing the premises or logical conditions for the question); or if the supervisor begins with asking for opinion and then shifts to giving an opinion (code 6 and then 8 since the question was never completed).

   There will be a period of doubt for the rater during these shifts. Continue to code your first category until it becomes clear to you that in fact the supervisor has made a shift in category, then continue with this category until the next shift is clear to you. It is suggested that these lags in categorization will eventually compensate for each other.

9. Gives Suggestions

   A. Action orientation past, present or future. Supervisor tells the trainee how to do things in the counseling situation or the supervision interview.

   B. Giving directions, commands or orders to which the trainee is expected to comply (e.g. setting up a role without considering if the trainee wants to do it i.e. let's role-play this situation, I'll be the client. Note: If the supervisor were to say "Would you like to role-play this situation? (Code 4).

   C. Supervisor role-playing as the counselor is suggesting to the trainee a response in a counseling situation.

10. Criticism

    A. All negative value judgements about the trainee as a person, his/her behavior in the supervision interview, or his/her approach to counseling. Any situation in which recrimination is present, when it is clear that the supervisor is pointing out that the trainee should have done something and didn't.

    B. Justifying authority as a supervisor with extreme self-reference (e.g. "I really have a better way of doing this since I've had considerably more experience" Code 10).

    C. Defensive behavior, justifying or defending personal behavior or ideas unnecessarily.

    D. Tension-producing behavior, putting the trainee on the spot in an aggressive manner (e.g. I think you better consider the problem more thoroughly before giving me your answer. . .) (e.g. Certainly you can think of something better than that response.)

11. Therapist Comments

12. Silence or Confusion

    A. Inaudible.

    B. Unintelligible (e.g. both speakers talking at the same time.)

    C. Silence, non-defensive (e.g. meaningful silence).

    D. Only score if the silence lasts at least 5 seconds.

APPENDIX J

Letter to Supervisors Soliciting Their Participation in Study 2

As part of my dissertation research, we are audiotaping psychotherapy/counseling supervision sessions. Our purpose is to describe different styles of supervision and to relate these styles to various supervisor demographic characteristics. Since this is a relatively unexplored area, we are concerned with describing supervisor style, not with evaluating it. No evaluation of the quality of the supervision will be made.

We ask that you allow us to audiotape one of your supervision sessions with a beginning practicum student. (Since supervisory style probably varies with the training level of the supervisee, we are holding this variable constant.) Supervisors will also be asked to complete a Demographic Information Sheet (DIS), which takes about 5 minutes. Nothing else, beyond the taping of a single supervision session and the supervisor-completed DIS will be required.

This research has been approved by Mark's doctoral research committee, by UCRIHS, by Dr. Abeles (Director of the MSU Psychological Clinic), and by Dr. June (Director of the MSU Counseling Center). The tapes will be kept strictly confidential and will be erased after being coded. You will remain anonymous, as will the content of both the tape and the DIS. All responses and results will be treated with strict confidence. You are free to decline to participate or to discontinue your participation at any time without recrimination.

In order to protect client confidentiality, the supervision tape should contain no material which would specifically identify any client. If the supervisor believes that a tape contains such material, 3 options are available:

1. The supervisor or supervisee may listen to the tape and erase the segment(s) in question.
2. The tape will be erased, and the next session between that supervisor and supervisee will be recorded.
3. The tape will be erased, and that supervisor/supervisee pair may withdraw from the study.

Mark will call you in a few days to answer any questions that you may have and to make further arrangements should you choose to participate. You will receive a summary of the results, if desired, even if you do not participate in this research.

Sincerely,

Mark Hardy, M.A.
Graduate Student in
Clinical Psychology

Norman Abeles, Ph.D.
Committee Chairperson

APPENDIX K

Consent Form for Supervisors and Supervisees Participating in Study 2

Research Consent Form

As part of my dissertation research, we are audiotaping psychotherapy/counseling supervision sessions. Our purpose is to describe different styles of supervision and to relate these styles to various supervisor demographic characteristics. Since this is a relatively unexplored area, we are concerned with describing supervisor style, not with evaluating it. No evaluation of the quality of the supervision or of the supervisee will be made.

We ask that you allow us to audiotape one of your supervision sessions. Supervisors will also be asked to complete a Demographic Information Sheet (DIS), which takes about 5 minutes. Nothing else, beyond the taping of a single supervision session and the supervisor-completed DIS will be required.

This research has been approved by Mark's doctoral research committee, by UCRIHS, by Dr. Abeles (Director of the MSU Psychological Clinic), and by Dr. June (Director of the MSU Counseling Center). The tapes will be kept strictly confidential and will be erased after being coded. You will remain anonymous, as will the content of both the tape and the DIS. All responses and results will be treated with strict confidence. You are free to decline to participate or to discontinue your participation at any time without recrimination.

In order to protect client confidentiality, the supervision tape should contain no material which would specifically identify any client. If the supervisor believes that a tape contains such material, 3 options are available:

1. The supervisor or supervisee may listen to the tape and erase the segment(s) in question.
2. The tape will be erased, and the next session between that supervisor and supervisee will be recorded.
3. The tape will be erased, and that supervisor/supervisee pair may withdraw from the study.

Your signature below indicated that the experiment has been explained to you, that you understand it including any inherent risks, and that you freely consent to participate. You will receive a summary of the results, if desired, even if you do not participate in this research.

Sincerely,

Mark Hardy, M.A.
Graduate Student in
Clinical Psychology

_____ _____

Signature Date

APPENDIX L

Table 17. Significant Correlations Between Nine Experience Variables and SSI Scales

Table 17

Significant Correlations Between Nine Experience Variables and SSI Scales.

Variable A	Variable B	r	p
DIS 24 - perceived effect of experience as a therapist (Factor 2)	SSI.A	.18 (.07-.29)*	.001
	SSI.IPS	.22** (.12-.33)*	.000
DIS 43 - perceived effect of experience as a supervisor (Factor 2)	SSI.A	.16 (.05-.27)*	.004
	SSI.IPS	.18** (.07-.29)*	.001
DIS 19 - interest in supervision (Factor 2)	SSI.A	.15 (.04-.26)*	.006
	SSI.IPS	.35** (.25-.45)*	.000
DIS 39 - frequency of reading/ study re. supervision (Factor 1)	SSI.IPS	.15** (.04-.26)*	.009
DIS 40 - frequency of consultation with other supervisors re. supervisory issues (Factor 1)	SSI.IPS	.23** (.12-.34)*	.000
DIS 42 - perceived effect of informal study (Factor 1)	SSI.IPS	.21** (.11-.32)*	.000

*95% confidence interval.
**First-order partial correlations controlling for the effect of theoretical orientation.

APPENDIX M

Evaluating Multiple Significance Tests

Evaluating Multiple Significance Tests

Whenever several significance tests are conducted as part of one study, the question arises of how to choose an appropriate type I error rate. This question has been debated for many years and, as yet, researchers have not reached a consensus as to its selection. The following terms need to be defined.

* Error rate per comparison (PC error rate) = the probability of making a type I error in any given significance test.
* Error rate experimentwise (EW error rate) = the probability that one or more type I errors will be made in a set of significance tests.
  = $1-(1-PC)^C$, where C is the number of significance tests performed. This approximately equals C(PC) for small values of C and PC.

  The probability that the set of tests contains no type I errors thus equals 1-EW.
* Number of errors experimentwise = the number of type I errors expected to be found, on average, in a set of significance tests = C(PC).

  Where C and PC are both small, the number of

errors experimentwise is thus approximately equal to the EW error rate.

Whenever significance tests are conducted, a certain number of "significant" findings will emerge due solely to chance fluctuations (type I errors). For any one test the probability of making such an error equals the PC error rate. The number of type I errors made in a set of tests (number of errors experimentwise) will, on average, equal C(PC) and so is cumulative. For example, there will be 0.5 type I errors in 10 tests conducted at a PC error rate of .05 and 2.5 errors in 50 tests. The probability that there is one or more type I errors in a set of tests (the EW error rate) equals $1-(1-PC)^C$ so that for 10 such tests EW = .40, and for 50 tests EW = .92.

There is a long-standing controversy among researchers as to whether or not this situation constitutes a problem, and, if so, what should be done about it. An argument from one end of the continuum states that if we make five significance tests in one study or five tests in a series of five studies, the cumulative type I error rate will be the same, approximately .25. Thus whether the five tests are made in one study or in five studies, they should be treated the same and use the same PC error rate. Researchers need only report the number of significance tests performed in each study.

At the other extreme are researchers who believe that the EW error rate should be strictly controlled by being set at the same level for all studies, no matter how many significance tests are performed in each.

> . . . We want a criterion for significance such that the [EW error rate] is constant regardless of the number of treatment groups. Only in this way can we adequately compare the results of the same comparison in different experiments (Myers, 1966, p. 333).

Researchers who agree on this point have not, however, been able to reach a consensus on what EW error rate to use. Some authors (Petrinovich & Hardyck, 1969) advocate the use of an EW error rate equal to the PC error rate (usually .05). Others, such as Keppel (1973), do not agree, "There is no justification for this procedure, except an appeal to a principle of symmetry" (p. 156).

Another major problem with setting a uniform EW error rate for all studies is that larger studies will then tend to have an unacceptably high number of type II errors. For example, consider two studies, one with 5 significance tests and one with 100 tests. If EW is set at .10, there will be a .90 probability that the results of each experiment will be completely free of type I errors. Since $EW=1-(1-PC)^C$, the larger study must have a much lower PC error rate to have the same .90 probability of being completely free of type I errors, its power will

be much lower, and its type II error rate will be correspondingly much higher.

This problem is compounded by the fact that the relative seriousness of type I and type II errors is different in different research areas. There is general agreement, for example, that type II errors are particularly dangerous in a new and developing research field. In such an area a type I error will result in more research being done which will eventually correct the error. A type II error will, however, discourage other researchers from investigating this variable and thus inhibit future investigation. Block (1960) states that,

> . . . in the early stages of problem investigation, research strategy may call for a "shotgun approach" in order to scan empirically for predictive relevance in new and strange variables. The consolidation of findings can come later in the course of a systematic research program. It is most important early in the research sequence not to overlook potential research leads (p. 373).

Proponents of even the most conservative methods for controlling the EW error rate thus often advocate the use of the uncorrected PC error rate in the early stages of problem investigation (Petrinovich & Hardyck, 1969).

APPENDIX N

Table 18. Correlation Matrix: Nine Experience Variables by P/E Match

Table 18

Correlation Matrix: Nine Experience Variables by P/E Match.

Variable	P/E Match	
	All Subjects	ABPP Diplomates
DIS 24	.08 p = .149	.15 p = .431
DIS 7	-.01 p = .927	-.20 p = .324
DIS 43	.01 p = .830	.20 p = .300
DIS 18	.11 p = .082	.06 p = .759
DIS 19	.05 p = .423	.16 p = .415
DIS 39	.07 p = .222	.12 p = .538
DIS 40	.11 p .060	.05 p = .820
DIS 42	.03 p = .616	-.29 p = .138
DIS 28	.03 p = .637	.16 p = .434

APPENDIX O

Table 19. Means and Standard Deviations of Attractiveness and Interpersonal Sensitivity Broken Down by Perceived Effect of Experience

Table 19

Means and Standard Deviations of Attractiveness and Interpersonal Sensitivity Broken Down by Perceived Effect of Experience.

	Perceived Effect of Experience			
	≤ Median		≥ Median	
Variable	Mean	SD	Mean	SD
SSI.A	5.46	.71	5.70	.64
SSI.IPS	5.13	.71	5.37	.70

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