SUPERVISION IN SCHOOL PSYCHOLOGY: THE DEVELOPMENTAL/ECOLOGICAL/PROBLEM-SOLVING MODEL

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Effective supervision models guide the supervisory relationship and supervisory tasks leading to reflective and purposeful practice. The Developmental/Ecological/Problem-Solving (DEP) Model provides a contemporary framework for supervision specific to school psychology. Designed for the school psychology internship, the DEP Model is also applicable to all pre-service and advanced field-based training, as well as career-long continuing professional development. The Developmental domain initiates training at the functioning skill level of the supervisee and progresses toward independent competency. The Ecological domain addresses the multiple systemic contexts that influence school psychology practice and prepares the intern to intervene within both individual and systemic contexts. The Problem-Solving domain focuses on the application of data-based decision making and evidence-based interventions to the full range of school psychology activities. It provides a systematic schema to address student, family, and school needs. © 2014 Wiley Periodicals, Inc.

Rather than merely assuming that competent practitioners are automatically effective supervisors, the field of clinical supervision has begun to examine the specific factors that contribute to successful supervisory experiences (Harvey & Struzziero, 2008). Domains being examined include organizational structures such as pre-training skill assessments and goal setting, formal contracts, advance planning for the content and process of supervision, and accountable recordkeeping; the character of the supervisory relationship; the utilization of multiple methods of supervision; the nature of effective feedback and evaluation; standards and methods to ensure multicultural competency; specific training for supervisees toward eventual assumption of professional supervisory roles; and attention to legal and ethical requirements, including those developed by state psychology licensing boards, the American Psychological Association (APA), and professional organizations specific to school psychology, including the National Association of School Psychologists (NASP, 2010b) and the Council of Directors of School Psychology Programs (2012).

To integrate these diverse factors into a framework that can guide supervisors in the day-to-day provision of effective supervision, it is necessary to formulate a coherent supervisory model that provides an overall conceptual organization of the supervisory process. A supervisory model grounds supervision in reflective and purposeful practice. A comprehensive model strives to conceptualize, organize, and execute supervisory tasks and functions in a manner that links theory, emerging research, and practice. Although this overarching model guides supervisory practice, it must be firmly grounded in the profession’s current understanding of best practices within school psychology. When the formulation of this organizing model is shared with the trainee, it provides a transparent

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context for participation in supervision and enhances the character and effectiveness of the overall supervisory experience.

**A Supervision Model for School Psychology**

Initial models of supervision in psychology relied heavily on clinical psychology therapy models (Bernard & Goodyear, 2009). The supervision process was conceptualized within psycho-dynamic, client-centered, behavioral, and other therapeutic orientation frameworks. These models could be helpful for therapeutic case conceptualization within a specific therapeutic orientation, but presented significant limitations. They risked creating confusion regarding the nature of the supervisory relationship as training or therapy. Focused on singular therapeutic treatment approaches, these models fell short in providing a comprehensive framework for the diverse professional tasks that are the focus of training.

In terms of supervision within the field of school psychology, these models failed to address the multifaceted practice roles that school psychology embraces. Although Knoff (1986) provided an early call for supervision models for school psychology, the major theory and research in clinical supervision in school psychology has come from the domains of clinical and counseling psychology and clinical social work. However, the daily practice requirements for school psychology seem to necessitate additional distinct and diverse elements. McIntosh and Phelps (2000) highlighted the complexities of the supervision process, noting the challenges with defining and conceptualizing its focus and tasks and the limited research regarding effective methods. As the only psychology discipline with both specialist- and doctoral-level internships, school psychology is faced with additional complexity in designing supervisory models.

*Competency-Based Training Initiatives*

Over the last decade, significant effort has focused on identifying and assessing a universal set of competencies as the target for training, credentialing, and accountability in the field of psychology (Kaslow, 2004). APA workgroups convened to define specific foundational and functional skills deemed essential to professional practice, which in turn would become the agenda for all levels of training (APA, 2006). To graduate to professional status, interns would need to demonstrate measurable outcomes in these competency domains. Competency benchmarks were developed to create behavioral markers (Fouad et al., 2009). Initial attempts were made to establish “competency assessment toolkits” to delineate assessment methods (Kaslow et al., 2009). NASP produced similar initiatives in *Blueprint III* (Ysseldyke et al., 2006) and the *Standards for Graduate Preparation of School Psychologists* (NASP, 2010b).

As the competency-based training initiative evolves, several challenges remain. Although APA strives to delineate core competencies across all psychology disciplines, it is not clear that this accounts for the specialist competencies required within the practice of school psychology (Daly, Doll, Schulte, & Fenning, 2011). A Work Group of The Council of Directors of School Psychology Programs (2012) has made efforts to adapt these broader professional psychology competencies specifically to the specialization of school psychology and integrate them in with the NASP (2010a, 2010b) training and credentialing standards. Reliable and valid operationalization and assessment of functions and skills will require significant empirical investigation. Phelps and Swerdlik (2011) urge school psychology to incorporate the competency initiative into internship training while cautioning that implementation will need to address significant issues, including identification and prioritization of school-specific competencies, relevance to daily tasks within school settings, and delineation of what characterizes an effective training program and its faculty. Newman (2013) underlines the importance of balancing sufficient breadth and depth of experience during the internship to support the intern’s acquisition of core entry-level competencies. In addition to focusing on practitioner...
skills, NASP training standards focus on the achievement of outcomes for clients (NASP, 2010b). This emphasis on outcomes is consistent with the evidence-based practice movement. Although the competency initiative articulates the content of internship training, it remains necessary to delineate effective processes for supervision and the characteristics and skill sets of competent supervisors (Falender et al., 2004). The supervision model outlined in this article attempts to integrate intern competency development into best-practice service delivery models within the framework of evidence-based practice.

**NASP Domains**

The NASP (2010a) Model for Comprehensive and Integrated Psychological Services specifies 10 domains of practice: data-based decision making and accountability; consultation and collaboration; interventions and instructional support to develop academic skills; interventions and mental health services to develop social and life skills; school-wide practices to promote learning; preventive and responsive services; family–school collaboration services; diversity in development and learning; research and program evaluation; and legal, ethical, and professional practice. A supervision model within school psychology must provide a framework for examining professional practice across these multifaceted domains while fostering an integration of a complex skill set that serves all school children. In current school psychology practice, supervisors must also be systemic change leaders who attend to systemic variables in supervision (Harvey & Pearrow, 2010). To address the broad direct and indirect service roles of contemporary school psychology, it is necessary to design a model of supervision that builds on past conceptualizations but is school psychology specific.

**Developmental Models**

Two integrative models of supervision within the clinical and counseling literature that can serve as starting points for a contemporary school psychology supervision model are the Integrative Developmental Model (IDM; Stoltenberg, 2005; Stoltenberg & Delworth, 1987; Stoltenberg & McNeill, 2009) and the Systems Approach to Supervision (SAS) Model (Holloway, 1995). The IDM emphasizes the developmental nature of supervision and highlights the necessity of tailoring the structure and content of supervision to the experience and skills levels of the trainee at each stage of supervision. While providing intense supports and directive supervision strategies at the onset of supervision, the eventual goal is to guide the trainee toward competent independent practice by the end of the training experience. Stoltenberg and associates (Stoltenberg, 2005; Stoltenberg & Delworth, 1987; Stoltenberg & McNeill, 2009) have outlined a four-stage model that tracks progression from novice to proficient/expert across three structures: motivation, autonomy, and self- and other-awareness. Novice supervisees present with both high levels of energy and vulnerability. Autonomy is minimal, as they depend on their supervisor to guide activities. At the early stages of training, novice supervisees often experience excessive self-consciousness about their professional performance, and this anxiety may limit their capacity for full awareness of relevant client and environmental cues. As interns progress toward competency, anxiety lessens, and they begin to experience increased professional self-efficacy, function independently with increased comfort, and begin to be able to observe content, process, and context simultaneously when engaged with clients.

The integration of these factors permits trainees to understand the challenges presented by their students, apply professional skills with increased automaticity, and be engaged in the moment while noting the implications of the process of their interactions together. Recognition of the impact that peer, school, and familial contexts present to the student enables the intern to see the “big picture” and implement coordinated interventions that address individual and contextual variables. Supervision guides the intern toward integration of content, process, and context in their work while
examining those elements within the supervisory relationship as well. The final stage in the IDM Model is defined as proficient/expert. Thus, it implicitly acknowledges that supervision needs to progress past internship and pre-professional activities into at least early career professional practice and has potential relevance throughout one’s career. When psychologists change work settings, experience new presenting issues, or integrate new intervention strategies, they cycle back through this developmental learning process.

**Systems Approach to Supervision**

Holloway’s (1995) SAS Model examines the contextual factors that impact both the content and the process of the supervisory relationship. These contexts include the institution, the supervisor, the client, and the trainee. Each context influences the course of supervision. The organizational structure and climate of the institution influence all aspects of professional practice. The supervisor’s competence, experience level, orientation, and cultural characteristics intersect with similar attributes in the trainee. These factors in turn impact the client who brings his or her own contextual variables to the training endeavor. The tasks of supervision, such as case conceptualization and skill development, and supervisory functions, such as monitoring, modeling, and consulting, interact with each other, influenced by the complex demands, challenges, and constraints of the contexts within which the training relationship occurs.

These developmental and systemic approaches to supervision fit well within the setting of school psychology training and practice. Stoltenberg’s (Stoltenberg, 2005; Stoltenberg & Delworth, 1987; Stoltenberg & McNeill, 2009) developmental focus mirrors the field’s understanding of effective teaching and learning for school children as well as for professional development for educators. Holloway’s (1995) systemic approach matches the focus inherent in ecologically sensitive intervention approaches within school psychology that emphasize interventions at both individual and contextual levels.

**Supervision for Diverse Professional Roles**

Whereas clinical and counseling psychology models of supervision have focused on counseling activities, school psychology has evolved into a diverse and complex set of roles that includes direct and indirect service delivery, individual and systemic interventions, proactive social/emotional learning instruction, the integration of academic and behavioral supports, early intervention, crisis intervention, universal screening, data-based progress monitoring, comprehensive psychological assessments, intense therapeutic interventions, and networking with community resources (Reschly, 2008; Sheridan & Gutkin, 2000).

This broad scope of professional responsibilities and activities challenges university preparation and supervision experiences at practicum, internship, and even post-specialist and doctoral training levels. Several features are common across these activities that can help to define an appropriate school psychology supervision model. All activities require core interpersonal skills; therapeutic skills for instruction in social, emotional, and coping skills; assessment and intervention practices that are data driven; understanding and implementation of evidence-based approaches in all domains; a commitment to interventions at individual and systemic levels; and the utilization of structured problem-solving methods. The problem-solving process that links data-based assessment with evidence-based intervention resides at the core of contemporary school psychology and is designated as a practice that “permeates all aspects of service delivery” in the NASP practice model (NASP, 2010a; Tilly, 2008). Empirically supported problem-solving is not limited by a specific intervention orientation, nor does it supply a one-size-fits-all approach to intervention. Instead, it defines a collaborative process that utilizes empirical methods drawn from the full range of research-supported...
strategies to differentiate interventions. When necessary, it informs innovative or experimental practices when problems are uniquely configured, complexly intermingled, and resistant to standard solutions by monitoring the outcomes of novel strategies to continuously adjust interventions when necessary.

We propose a Model of Supervision consistent with the professional requirements of school psychology practice that incorporates developmental and systemic perspectives and integrates them into the primary problem-solving role in the field. The Developmental/Ecological/Problem-Solving (DEP) Model attempts to integrate individual and contextual intervention factors into a flexible framework for guiding supervisory practice within a school setting.

**DEVELOPMENTAL COMPONENT**

We discuss the DEP Model in terms of the predoctoral- and specialist-level internships, the capstone professional training experiences in school psychology; however, its principles apply to practicum, post-specialist, and doctoral degree training and ongoing supervision of professional practice.

**Formative and Summative Assessment**

The Developmental component of this model necessarily begins with the assessment of the intern’s current skills and needs across all domains outlined in the Internship Plan. This plan is constructed jointly by the supervisee and supervisor based on the supervisee’s needs, strengths, and goals. It is a formative document that provides a roadmap of what activities the supervisee will engage in during the year. It is essential that the plan be individualized to recognize that professional skill sets will be unevenly developed, even for the exceptionally well-prepared intern. Thus, the training experience and supervisory posture will vary across different practice domains. Some areas may be near professional competency, while the trainee may have limited experience in another professional skill set. This assessment process informs the initial structuring of intern activities and supervisory supports to guide the intern from novice status toward eventual independent professional entry skill level in all essential school psychology role domains on the conclusion of the internship experience. As progress on the Internship Plan is reviewed in supervision, the supervisor and intern engage in dialogue regarding appropriate levels of independence and challenge. They also review whether all competencies are being sufficiently addressed. These formative reviews require an ongoing examination of the effectiveness of the supervisory relationship itself.

**Developmental Continuums.** The developmental process of supervision is designed to begin training at the functioning levels assessed at the beginning of training in each competency domain. Consistent with competency benchmarks (Fouad et al., 2009), the supervisory task proceeds to systematically prepare trainees for overall readiness to enter professional practice at the conclusion of their intern year. The following bulleted items highlight developmental continuums across a broad range of performance dimensions, training and supervisory tasks, and professional roles. In each case, there is a progression from early to late stages of training:

- directive to less directive;
- dependent to independent;
- task specific (i.e., assessment or specific skill training) to consultation;
- co-therapy/problem-solving to independent practice/consultation;
- individual to systemic focus;
- assigned/circumscribed duties to increased initiative;
- direct observation to intern reports;
supervisor-driven agenda to intern-driven agenda within supervisory sessions;
relative dependence on supervisor to initiation of broader support resources;
explicit feedback from the supervisor to increased self-reflection and evaluation;
a move toward an integration of theory and practice, with integrated, less isolated, skill sets; and
progression within the supervisory role from teacher to mentor to consultant.

Supervisory Relationship. At the end of training, the progression outlined here culminates in
a supervisory relationship that approaches a junior colleague supported by senior consultant status.
Whereas a successful supervisory relationship will generally deepen the intern’s respect for his or
her supervisor, the intern may achieve a healthy recognition of the limitations as well as the strengths
of the supervisor’s functioning within a challenging profession whose everyday practice is marked
by significant ambiguity of outcomes. The intern’s growing confidence and sense of independent
competency should include a realization of the continued need for collegial consultation and lifelong
professional development.

The supervision process is a critical step in the preparation of the next generation of clinical
supervisors. Opportunities for reflection on the benefits and character of this training relationship
may help prepare the supervisee for an eventual role as supervisor. The content of supervision
sessions must include reflection on the supervisory process. A final aspect of the developmental
progression should be the provision of guided opportunities to supervise less advanced trainees or
school staff involved in specific projects (Falender et al., 2004).

ECOLOGICAL COMPONENT

Ecological considerations underscore the second component of the DEP Model. Training in
school psychology occurs within multiple systemic contexts. It begins under the umbrella of the
profession as a whole, how it is defined and supported through formal and informal professional
networks, and how it is informed by healthy debates that define the nature of best practice. Training for
school-based practice is influenced by the context of the university setting and guided by national and
state educational initiatives. Schools exist within local community systems. Local district, school,
and classroom structures and cultures form the immediate context of service delivery and most
directly impact the educational lives of children. Two critical systems that influence students and
thus must be direct targets of psychological interventions are the family system and various student
peer networks. Psychologists also participate in a variety of trans-disciplinary faculty teams that
serve to define curriculum, rules, and procedures, and the tenor of educational supports for children.

Evidence-Based Interventions from an Ecological Lens

Given this diverse context, evidence-based interventions (EBIs) must be adapted to occur
within individual, peer, classroom, and community contexts. It is no longer sufficient to educate
interns primarily for individual service to children. Supervisees are educated to know and employ
EBIs to involve and influence each context of the student. For example, as an intern participates
in a comprehensive bullying prevention program, interventions are employed to change the school
culture that permits peer-to-peer harm, to teach self-advocacy and coping skills to victims, and
to directly intervene with aggressors aware that their inappropriate behaviors likely arise out of
psychological difficulties as well.

Systems-Level Variables

The understanding that engaging in systemic interventions is a central role in psychology
requires that we specifically educate interns in program development and organizational change
skills. Rather than protect supervisees from the rough and tumble politics and infighting that occur within schools just like they do in all organizations, training guides them to understand school culture and decision-making processes. Knowledge of best-practice frameworks must be accompanied with learning how to achieve implementation. Interns are taught to assess systemic resources for and barriers to change and healthy development. They learn how to sponsor new initiatives, garner support, manage resistance to change, implement pilot projects, engage in systems-level consultation, and set foundations that support sustenance of critical programming. Leadership training is a key component of the internship plan. Leadership requires modeling, direct instruction, practice, and focused supervisory efforts.

**The DEP Model in a Diverse World**

The ecological dimension of the DEP supervisory model underscores the importance of training for understanding, respecting, and supporting the full-range of diversity that may be present in schools. Understanding the cultural context for student behavioral and emotional regulation and for parenting styles and strategies is essential to successfully support students and engage in effective problem-solving (Lynch & Hanson, 2011). Child-rearing practices and characteristics of acceptable prosocial behaviors present with variations across different cultures. It is critical to understand this backdrop when attempting to provide support for families and to foster support for student learning and healthy psychological development.

Recognition of cultural differences does not serve to compromise the important values inherent in inclusive and nondiscriminatory practices and American education’s commitment to support the full potential of all students. For example, a particularly sensitive area to navigate is the differences among cultures in gender roles and opportunities. In the DEP Model, interns are trained to understand the supports and constraints offered by gender role definitions in various cultures. However, they use this understanding to sensitively involve both parents as necessary in problem-solving around school challenges and to avoid supporting limiting definitions of female or male potential and roles.

School psychologists have championed both the provision of services and inclusion in the educational milieu of children who were previously marginalized. Although progress has been made, the field continues to fight stigmas related to psychological, physical, and cognitive disabilities. Recent initiatives have begun to address school cultures that support bullying and that discriminate against lesbian, gay, bisexual, and transgender students (e.g., Orpinas & Horne, 2006). These efforts require coordinated efforts to support individual students and change the systemic context and are important training opportunities.

The internship training agenda includes mastery skills for EBIs at individual, family, school, and community levels. In addition to practice under supervision with individual student interventions, interns typically receive training in evidence-based brief family therapy interventions, classroom interventions, and group psychosocial skill training programs. To collaborate effectively with community resources, supervisees should understand Multisystemic Therapy strategies that have garnered empirical support (Swenson, Henggeler, Taylor, & Addison, 2009), wrap-around support networks (Eber, Sugai, Smith, & Scott, 2002), and potential benefits of full-service schools aligned with public health models of mental health service delivery (Doll & Cummings, 2008; Dryfoos, 1998; Reeder et al., 1997; Swerdlik, Bucy, & Meyers, 2002).

**Problem-Solving Component**

The third prong of the DEP Model is Problem-Solving. Empirically supported problem-solving is the core professional activity of school psychologists and a central focus of supervision. It is rooted in data-based decision making that applies a systematic analysis of both individual and contextual
Developmental/Ecological/Problem-Solving Model

factors to solution generation. Assessment and progress monitoring systems are implemented within schools to promote early intervention and link identified problems to EBIs. Problem-solving begins with an application of empirically supported intervention strategies. Their impact is routinely monitored in relation to baseline data, and intervention strategies are revised as necessary. EBIs must adapt to individual student differences and the contexts within which they function. EBIs are not uniformly successful and often do not take into account common comorbidities (Kendall, 2012). It is often necessary to employ modular approaches that recognize the need for differentiation and individualization in intervention strategies (Chorpita, 2007). Creativity, flexibility, and innovation are still required in intervention planning. School psychology still requires an integration of professional art and science. Good practice fosters reasonable innovation for complex problems while continuing to monitor intervention effectiveness.

The supervisory process in the DEP Model examines the integrity of delivery of EBIs practices while addressing the necessity of adaptation to a unique school setting. There remains a critical need for implementation science in school psychology (Forman et al., 2013). Research efforts are required to ascertain what practice factors influence or modify the effective application of EBIs to diverse school settings. Effective supervision practice requires the collection of data to inform intervention implementation and includes an evaluation of the empirical support for various response strategies under consideration.

Problem-Solving across Ecological Systems and Developmental Stages

Maintaining an ecologically sound perspective, it is necessary to coordinate individual and environmental (systemic) strategies for change and to marshal all relevant faculty and familial resources to support solutions. The supervisory experience guides the integration and implementation of the entire problem-solving process. Interns receive coaching and specific feedback regarding their participation in transdisciplinary problem-solving teams. A central focus of training is development of skills for rapport building, teaming, and collaborative problem-solving. Consistent with the ecological component of DEP Model, interns are trained in responding to resistance to change by students, parents, educational staff, or the school system itself. Consistent with the developmental component of DEP Model, a supervisee in the latter stages of the supervisory experience should take responsibility for complex challenging cases while receiving ongoing consultation from the supervisor. This includes training in advanced problem-solving skills, therapeutic skills for crisis intervention, and empirically supported treatments for serious and complex psychological disorders.

Empowering Others to Be Problem Solvers

The “big picture” framework emphasizes that teaching problem-solving skills is an essential educational task and part of the core curriculum. Psychologists engage in systematically teaching problem-solving skills to students, teachers, and parents so that they can become their own problem-solvers. Trained for “school-centered” mental health service delivery, interns are prepared to intervene simultaneously in instructional and therapeutic domains for maximum student benefit (Simon, 2012).

Augmenting Problem-Solving Skills through Supervision

The implications for supervision inherent in this focus on problem-solving are far-ranging. Supervisory sessions systematically model data-based decision making and the linkage of assessment to EBIs. Consistent with the ecological perspective, feedback is given not only regarding interactions with children but regarding collaboration with parents, teachers, and community resources. In concert with the developmental training perspective, supervisors ensure that trainees have opportunities to
FIGURE 1. DEP model of supervision. Orgs. = organizations.
intervene across multiple tiers and multiple systems and that experience is garnered with complex challenging cases. It is also important for the supervisor to obtain feedback from the intern regarding the effectiveness of their joint problem-solving efforts within supervision. This dialog not only improves supervision but models the importance of obtaining feedback and engaging in formative assessment during every stage of the problem-solving process.

SUMMARY

The dimensions of the DEP Model provide a framework for supervisory tasks, functions, and decisions. These domains are relevant to interventions in academic and behavioral areas, at all tiers of service provision, and throughout all stages of the internship year. This model can address the complex indirect and direct service roles of school-based practitioners and thus specifically supports training in school psychology. Figure 1 summarizes the core characteristics of the three inter-related domains of the DEP Model.

The DEP Model provides a framework for organizing, implementing, and monitoring the internship year, the supervisory experience, and the development of intern competence. It is congruent with the diverse roles and contemporary best practices within school psychology. It matches training needs to professional service demands to guide supervisory practice. This flexible schema provides needed structure to the supervisory relationship and ensures that we are striving toward purposeful and reflective supervisory practice. In addition to case-specific applications, the DEP Model can provide a conceptual framework for training programs. For example, the Illinois School Psychology Internship Consortium conceptualizes supervision within this model, orients supervisors to its theory and application, and supports its implementation through routine meta-supervision conferences. The core principles of this model are applicable to training and development after professional certification has been acquired.

REFERENCES


