Cognitive complexity is a developmental framework for conceptualizing how knowledge is acquired and applied. While multiple definitions of cognitive complexity exist (Castillo, 2018), in its most basic form, cognitive complexity development encompasses a spectrum. On one extreme of the spectrum, people: (a) view the world dichotomously, (b) rely on perceived experts for guidance and information, and (c) assume that reality is objective, and beliefs are universal. On the opposite end, people: (a) view the world relatively and (b) believe knowledge is attained through inquiry, although inquiry is inherently viewed through one's subjective lenses and thus cannot be trusted completely (Granello, 2000; Kitchner & King, 1981). It is important that educators and supervisors foster cognitive complexity development, as it is foundational to counseling skills including: (a) recognizing and integrating diverse information into coherent client conceptualizations, (b) developing culturally appropriate treatment plans, (c) awareness of one's biases and blind spots (d) empathizing with clients, and (e) effectively applying counseling skills (Castillo, 2018; Granello, 2000; Welfare & Borders, 2010).

Thus, it is beneficial for counselor educators and supervisors to understand and promote cognitive complexity development. Multiple supervision theories implicitly or explicitly describe cognitive complexity development, beginning with Hogan's (1964) seminal developmental model. Hogan emphasized the importance of developmentally tailoring supervision and described four distinct developmental levels. Level one supervisees rely entirely on methods learned through their training program, while level four supervises create novel, personalized approaches to psychotherapy that integrate parts of themselves with models learned in their training program.

Hogan's (1964) model gave rise to additional supervision models that articulate a cognitive complexity framework including: (a) Loganbill, Hardy, and Delworth's (1982) Conceptual Model of Supervision, (b) Stoltenberg's (1981) Counselor Complexity Model, (c) Stoltenberg, McNeill,

and Delworth's (1998) Integrative Developmental Model, (d) Stoltenberg and McNeill's (2010) articulation of the Integrative Developmental Model, and (e) Rønnestad and Skovholt's (2003) research based developmental phase model.

There are also theories describing cognitive complexity in the context of broader education such as King and Kitchener's (1994) Reflective Judgement model and Perry's (1970) model of Intellectual and Ethical Development. While differences in the number of stages exist between cognitive development models, for decades theorists have articulated remarkably similar trajectories, whereby one progresses from concrete thinking and reliance on authority figures to abstract, integrated, and less stereotyped thinking with high awareness of self and others (Blocher, 1983; Granello, 2000). It is encouraging that multiple theorists present similar developmental trajectories (Granello, 2000; Welfare & Borders, 2010), and the alignment across models serves as a useful baseline that provides fertile ground for integration.

The purpose of this article is to demonstrate the alignment between King and Kitchener's (1994) Reflective Judgement model and prominent developmental models of supervision, as a step toward developing a comprehensive developmental framework that counselor educators, counseling supervisors, and researchers can use to foster and understand counselor development. In doing so, counseling supervision models (i.e., Loganbill, Hardy, & Delworth, 1982; Rønnestad & Skovholt, 2003; Stoltenberg & McNeill, 2010) are aligned under a model that is grounded in an educational context (i.e., King & Kitchener, 1994). This alignment demonstrates how a single coherent framework can be used to conceptualize and foster cognitive complexity development seamlessly across educational and supervisory contexts. Thus, educators can use this model to conceptualize students' cognitive complexity development when designing curriculum, learning,

and supervision experiences. Aligning these four models also provides a comprehensive definition of, and conceptual framework for, cognitive complexity development.

Cognitive Complexity Within Domains

Evidence suggests that cognitive complexity is likely specific to contextual domains. Thus, a trainee may demonstrate relative thinking in some contexts and dichotomous thinking in other contexts (King & Kitchener, 1994; Loganbill et al., 1982; Stoltenberg & McNeill, 2010; Welfare & Borders, 2010). For example, a trainee who demonstrates high complexity when conceptualizing a client's depression in the context of retirement and later life career transitions might demonstrate low complexity when conceptualizing a different client's depression in the context of interpersonal struggles and attachment history. Thus, it is normal for supervisees to present with features from multiple stages, based on the supervisee's personal experiences, culture, values, biases, and beliefs.

Loganbill et al. (1982) explicitly focused on cognitive complexity development as domain specific. These authors theorized that being in lower levels of cognitive complexity development in some domains provides stability for supervisees who are experiencing turbulent cognitive complexity development in other domains. Thus, readers are encouraged to consider trainee development within specific contexts or domains, rather than considering trainees' *general* cognitive complexity development.

Aligning multiple conceptual models is congruent with cognitive complexity, as integrative alignment is characteristic of higher levels of cognitive complexity development (e.g., Loganbill, Hardy, & Delworth, 1982; Stoltenberg & McNeill, 2010). However, in aligning multiple models, one risks detracting from the wealth of contextual information that each unique model provides. The purpose of this alignment is not to negate the unique contributions of each model. To the contrary, aligning these models highlights the remarkable degree of consistency that

exists across cognitive complexity development models in educational and supervisory literature.

The Reflective Judgement Model

The following subsections are organized using the seven substages that King and Kitchener (1994) described as an overarching framework. This framework is appropriate as it is rooted in educational contexts and it has more substages, and thus specificity within substages, than the supervision models. Using a framework that is grounded in education also bridges cognitive complexity from existing supervision literature into broader educational and training contexts.

King and Kitchener's (1994) Reflective Judgement model and measurement protocol have been used in multiple research projects, including a ten-year longitudinal study in which the authors catalogued the ways in which people at varying educational levels, from high school through doctoral students, reflected on how they arrived at their responses to complex problems. In developing their model, King and Kitchener integrated their own research with existing theories (e.g., Perry, 1970) and research, which resulted in a cognitive complexity model with three stages that are further divided into seven substages. Thus, King and Kitchener's model is also a useful step in transitioning developmental supervision models from being backed by faith (Storm, Todd, Sprenkle, & Morgan, 2001) to being backed with empirical support. The following descriptions are summarized based on King and Kitchener's (1994) descriptions.

Pre-Reflective Thinking

This initial stage encompasses the first three substages of the model. During this stage, people believe knowledge is absolute and certain. It is assumed that even the most complex problems have answers that are objectively either correct or incorrect. The answers to problems likely come either from authority figures or direct personal experience. These stages are

characterized by low awareness of others, as a person in these stages often assumes that others share their exact beliefs.

Quasi-Reflective Thinking

The fourth and fifth substages fall under the second stage of King and Kitchener's (1994) model. Called the quasi-reflective thinking stage, this stage is marked by the recognition that evidence is foundational to opinions, although people in this stage conceptualize knowledge as highly subjective. Unlike those in the pre-reflective stage, people in the quasi-reflective stage recognize that opposing views or contradicting facts exist. However, people in the quasi-reflective stage are prone toward frustration, as they have difficulty reconciling opposing views or facts, and they tend to see opposing views as carrying equal validity or weight. Thus, they believe that all knowledge is inherently relative, and that there can never be any one correct answer.

Reflective Thinking

The final stage in King and Kitchener's (1994) model, called the reflective thinking stage, includes the sixth and seventh substages. People in this stage are better able to evaluate and apply information to specific contexts to determine which opposing fact, believe, or evidence is likely to be a better fit within a given context. In this way, people in the reflective thinking stage are no longer impaired by the belief that knowledge is inherently relative. People in the reflective thinking stage are highly self-aware, and they can clearly articulate the origins of their beliefs, and the extent to which a given belief is empirically grounded. Simultaneously, they are also highly aware of others, and they recognize that empirical evidence is inherently biased by subjectivity, and they are aware that different peoples' subjective world views can result in different conclusions.

Table 1

Developmental Stage Matrix

Model	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Stage 7
King and Kitchener (1994): Reflective Judgement Model	**Substage 1** Pre-Reflective Thinking	**Substage 2** Pre-Reflective Thinking	**Substage 3** Pre-Reflective Thinking	**Substage 4** Quasi-Reflective Thinking	**Substage 5** Quasi-Reflective Thinking	**Substage 6** Reflective Thinking	**Substage 7** Reflective Thinking
Rønnestad and Skovholt (2003)	**Phase 1** Lay Helper	**Phase 2** Beginning Student	**Phase 2** Beginning Student	**Phase 3** Advanced Student	**Phase 4** Novice Professional	**Phase 5** Experienced Professional	**Phase 6** Senior Professional
Loganbill, Hardy and Delworth (1982)	**Stage 1** Stagnation	**Stage 1** Stagnation	**Stage 1** Stagnation	**Stage 2** Confusion	**Stage 2** Confusion	**Stage 3** Integration	**Stage 3** Integration
Stoltenberg and McNeill (2010): Integrative Developmental Model	**Level 1**	**Level 1**	**Level 1**	**Level 2**	**Level 2**	**Level 3/3i**	**Level 3/3i**

Aligning Reflective Judgement with Developmental Supervision Models

The following sections describe the alignment between: (a) the seven substages in King and Kitchener's (1994) Reflective Judgement model, (b) the six phases in Rønnestad and Skovholt's (2003) supervisee development model, (c) the three stages in Loganbill, Hardy, and Delworth's (1982) Conceptual Model of Supervision, and (d) the three levels in Stoltenberg and McNeill's (2010) Integrative Developmental Model. Table 1 summarizes how stages in a given model align with stages in the other models.

Pre-Reflective Thinking

King and Kitchener (1994) categorized the first three stages in their model as pre-reflective thinking substages. The authors described struggles with low awareness, dichotomous thinking, and a high reliance on authority figures as characteristic of these initial stages. As Table 1 shows,

the pre-reflective substages are analogous to level one in Stoltenberg and McNeill's (2010) model and to the initial stagnation stage in Loganbill et al.'s (1982) model. Similarly, Rønnestad and Skovholt's (2003) lay helper and beginning student phases align with the first two substages in King and Kitchner's (1994) model.

People in the pre-reflective thinking substages struggle with (a) awareness that problems exist for which there is not an absolute answer, (b) using logical reasoning, and (c) identifying data that is at odds with personal assumptions (King & Kitchner, 1994). Thus, trainees in these substages will likely struggle with identifying relevant client information, evaluating the applicability of clinical knowledge, and integrating research with practice.

Pre-reflective thinking: Substage one. The first pre-reflective substage is characterized by the belief that knowledge is not abstract, and that it only exists in absolute, concrete terms. People in this initial substage are prone to introjecting anything an authority figure states, without critique or questioning, as people in this substage lack a framework for the idea that one person might disagree with another (Kitchner & King, 1994). In their sample of people who were high school aged and older, Kitchener and King (1981) did not identify anyone in substage one. Thus, it is unlikely that students in graduate mental health programs are in this substage.

Further, educators likely look for factors that exclude people in the first substage during the graduate admission process. For example, counselor educators often assess candidates for their openness to multiple perspectives, ability to acknowledge and build upon the ideas of others, and awareness of how personal values and biases have the potential to impact one's worldview (Nagpal & Ritchie, 2002; Swank & Smith-Adcock, 2014). These characteristics require awareness of self and others, which is underdeveloped during the initial substages. In this respect, King and

Kitchener's (1994) first substage is akin to Rønnestad and Skovholt's (2003) lay helper phase, as both occur before one enters a professional training program.

Pre-reflective thinking: Substage two. King and Kitchner (1994) described people in their second substage as aware that alternative perspectives exist. However, people in this substage maintain an absolute view of knowledge as either right or wrong. People in this substage tend to view knowledge that is held by themselves or a trusted authority figure (e.g., a priest, a news reporter, a teacher, or a supervisor) as representing an objective truth. In this way, people in substage two acknowledge that different people have different opinions, even if different opinions are dismissed as inaccurate, ignorant, or misinformed. A trainee in the second substage might have a very basic template for what constitutes a mental health concern, such as a list of diagnostic criteria, and they might rely on an authority figure for concrete advice on how to alleviate clients' symptoms.

The tendency for supervisees who are in early developmental stages to rely on educators, supervisors, or other authority figures is consistent across multiple theories. Rønnestad and Skovholt (2003) noted that supervisees in phase two of their model are likely to search for experts to emulate, since their learning is largely based on mimicking perceived experts. Similarly, Loganbill et al. (1982) conceptualized students in the beginning stagnation phase as having dichotomous, constricted worldviews and being highly dependent on supervisors, to the point that some supervisees believe their supervisors are all knowing. Supervisees in this stagnation phase are unlikely to believe that knowledge comes from within themselves rather than from a perceived expert. Stoltenberg and McNeill (2010) also proposed that supervisees in level one of their model are likely dependent on their supervisor, and they recommend that supervisors accommodate this dependence by providing structure and positive feedback, while generally avoiding direct

confrontation. Thus, educators and supervisors who encounter trainees in the second substage may find it useful to focus on the relationship by offering genuine acknowledgement, validation, and empathy, with the goal of encouraging the trainee to develop a more collaborative rather than reliant relationship.

Pre-reflective thinking: Substage three. When people reach King and Kitchner's (1994) third substage, they begin to recognize that even authority figures are unable to answer some questions. However, they persist in the belief that, given enough time and concrete evidence, a single correct answer to the question will emerge. If someone in this substage encounters a question that cannot be answered by an authority figure, they will often answer the question based on what intuitively feels right. People in this substage eschew probability based on the belief that evidence should point directly to a right or wrong answer. This quest for what is right is reflected in Stoltenberg and McNeill's (2010) description of level one supervisees as focused on identifying the correct theoretical approach to treating a client.

Thus, trainees at this developmental level are aware that multiple experts have developed multiple approaches, which may have efficacy with a client. However, these trainees are at risk for mistakenly relying on their own values, biases, and beliefs when deciding among treatment options that are not clearly differentiated by what they determine to be objective proof. In other words, while generally well intentioned in their efforts, they are likely to blindly impose their worldviews on clients (Bullough, Young, Hall, Draper, & Smith, 2008).

Educators and supervisors can prepare for trainees' frustration when trainees are unable to clearly determine which approach is 'right' for a given client or scenario. When this occurs, it may be helpful to re-focus on the supervisory relationship and model process comments and reflections to assist supervisees in becoming more aware of personal reactions, dynamics, and themes that get

in the way of assessing the myriad of potentially beneficial routes to understanding client concerns (Eubanks-Carter, Muran, & Safran, 2015). Similarly, focusing on validation and positive feedback can go a long way in easing anxiety and facilitating reflectivity (Rønnestad & Skovholt, 2003)

The search for the right answer can place these trainees at risk for prematurely anchoring to a given approach, without realizing that incomplete client information limits their identified solutions. Students at this developmental level may be more likely to adhere to their primary counseling theories, such as structured and empirically supported approaches like Cognitive Behavioral Therapy (CBT), and they may lack the relative thought to recognize situations where CBT may not be equally effective for all clients and presenting concerns. Rønnestad and Skovholt (2003) suggested supervisors support supervisees in this developmental challenge (phase two of their model) by providing concrete, easy to learn approaches to client care. On the other end of the spectrum, more developed counselors are less reliant on their primary theoretical orientation, and they are more likely to try out new clinical solutions. In other words, there is a positive relationship between development and propensity toward using eclectic approaches (Brabeck & Welfel, 1985; Vasco & Dryden, 1994).

Similarly, trainees in substage three are unlikely to adapt when faced with novel information or contexts. These trainees may have difficulty relating complex factors to one another, which can result in difficulty identifying the etiology of a given client's mental health concern. This difficulty may be related to the way that concrete representations are coordinated to form a simple representational system during pre-reflective stages of development (King & Kitchener, 1994).

For example, a supervisee may recognize that a client is experiencing a set of symptoms (first concrete representation) which are consistent with depression (second concrete

representation) and they may also identify that the client's depression emerged while the client experienced the loss of a job (forming a simple representational system related to the etiology of the client's depression). However, such a reductionistic explanation may lead the supervisee to focus on equally reductionistic solutions (e.g., behavioral interventions aimed at increasing likelihood of future employment), while failing to address contextual factors such as how the client's culture, family expectations, relationship dynamics, and developmental life stage intersect and exacerbate depressive symptoms. Thus, supervisors and educators working with trainees at this developmental level can focus on exploring alternate contexts and encouraging supervisees to develop contextual conceptualizations, which counter reductionistic thought patterns. Loganbill et al. (1982) observed that supervisees who are nearing the end of the stagnation stage tend to take comfort in dichotomous, concrete thought, which can result in the supervisee becoming stuck. Thus, interventions that counter reductionistic thought patterns may be a critical bridge to the next developmental substage.

Quasi-Reflective Thinking

King and Kitchener (1994) described people in the quasi-reflective thinking stage as moving beyond relying on authority figures and personal experiences when forming their beliefs and opinions. Rather, people in the quasi-reflective stage view knowledge as relative, and they are thus aware that different people likely hold unique beliefs. As is seen in Table 1, King and Kitchener's descriptions of this stage align with Loganbill et al.'s (1982) confusion stage, Stoltenberg and McNeill's (2010) descriptions of level two supervisees, and Rønnestad and Skovholt's (2003) advanced student phase.

Quasi-reflective thinking: Substage four. In substage four of King and Kitchener's (1994) model, people begin to view knowledge abstractly, and they believe that it is not possible to know anything with certainty. Trainees in stage four are likely to have difficulty distinguishing theory from empirical evidence, and they are also likely to encounter difficulty in evaluating differences in opinions. For example, if an educator expresses a different opinion from a student in stage four, the student might acknowledge that different opinions exist, while also asserting that neither position is more correct than the other. This could lead to frustration and confusion within the counseling and supervision process. At the same time, multicultural competence appears to emerge during this stage, as supervisees can conceptualize culture and context as factors that underlie divergent opinions.

Rønnestad and Skovholt's (2003) advanced student stage overlaps with King and Kitchener's (1994) fourth substage. Rønnestad and Skovholt described supervisees in the advanced student stage as reliant on their supervisors, yet prone to ambivalence due to their struggling to reconcile their dependence with a desire for autonomy. As trainees in this stage are likely nearing the end of their training programs, they are learning how to focus internally, while still relying on expert modeling.

Similarly, Stoltenberg and McNeill (2010) described supervisees as reaching level two of their model after multiple semesters of practicum. These level two supervisees are more aware of and empathetic toward clients, as they understand that one's worldview and values are based on lived experiences, context, and culture. They are aware that multiple perspectives exist, although they may tend toward enmeshment within the counseling relationship. They are also prone to alternate between autonomy and dependency, which can result in conflict with supervisors.

Loganbill et al. (1982) described supervisees who are in the confusion stage of their model similarly, as they conceptualized these supervisees as confused, ambivalent, and, at times, potentially hostile, due to their struggles with autonomy and dependence. Therefore, supervisors working with trainees in this stage can model immediacy and self-disclosure to attend to the relational dynamics and struggle for autonomy that present during this substage. Immediacy may help to shift the focus to the supervisory relationship, while simultaneously highlighting discrepancies between the supervisee's words, behaviors, thoughts, and feelings. Similarly, self-disclosure can strengthen the supervisory alliance, encourage autonomy, and provide alternate conceptualizations of the client's concerns based on multiple theoretical orientations (Friedlander, 2015).

Quasi-reflective thinking: Substage five. When a trainee enters King and Kitchener's (1994) fifth substage, they begin aligning with relative, rather than concrete or dichotomous, belief systems. These trainees still believe that no one can know with certainty, however, they understand that context and other factors can be used to evaluate the quality or strength of a belief system. In this substage, one can evaluate two abstract concepts against one another to determine the relative strength of knowledge claims. Doing so requires knowledge that alternate perspectives exist, and that gaps exist in the evidence regarding which perspective is relevant to a specific client. Thus, trainees in substage five can make contextually aware judgements and decisions, without relying on dogmatic and reductionistic frameworks that are present in earlier stages (King & Kitchener, 1994). Loganbill et al. (1982) described this process of moving from concrete to relative thought as liberating supervisees from restricted views of the self and the broader world.

Rønnestad and Skovholt (2003) captured supervisees' move away from dogmatic frameworks in their description of the novice professional stage. In this stage, supervisees

recognize more of the complexities of counseling, while also demonstrating awareness of how their personality comes through in their work. However, supervisees in this stage may continue to experience frustration, as they recognize that their education did not prepare them for all the client complexities they are encountering. Stoltenberg and McNeill (2010) encouraged supervisors working with trainees experiencing the turbulence associated with this developmental stage to dynamically alter their supervision approach, based on the supervisee's rapidly evolving needs. When working with trainees in this stage, educators can provide opportunities to develop trainee autonomy by encouraging trainees to watch and evaluate their recorded sessions and reflect on tangible outcomes and goals for their ongoing development (Owen & Lindley, 2010).

Reflective Thinking

King and Kitchener (1994) referred to substages six and seven in their model as the *reflective thinking* stages, as people in these substages view knowledge as constructed, rather than as an objective truth. Inherent in this constructivist belief system is the notion that one cannot separate knowledge from the context in which it was constructed. A clinician or supervisor who is in these substages effectively draws on empirical evidence to evaluate different theories, interventions, and other aspects of treatment, without becoming overly reliant on a given approach. This way of thinking is arguably foundational to effective evidence based practice, as evidence based practice requires clinicians to integrate their own clinical judgement with research support (Sackett, Rosenberg, Muir Gray, Haynes, & Richardson, 1996). In this way, evidence based practice is co-constructed by client, clinician, researcher, and supervisor. Thus, clinicians in the reflective thinking stages are equipped to respond to Paul's (1967) question by evaluating what research is likely relevant to a unique client, with unique circumstances, who is working with a particular clinician.

Reflective thinking: Substage six. Within King and Kitchener's (1994) reflective thinking stage, the sixth substage is denoted by a shift in the role that one takes in relation to knowledge, as people in stage six recognize that they are an active part of the knowing process. In this way, people stop taking the role of a passive knowledge spectator. Substage six thinkers are actively engaged in constructing knowledge and recognize their engagement. Unlike substage five thinkers, those in substage six eschew notions of right or wrong, as they prefer the more relative terms better or worse.

This increased awareness regarding one's role in the co-creation of knowledge is well articulated by Rønnestad and Skovholt's (2003) description of clinicians who are in the experienced professional phase. Clinicians in this phase actively seek out continuing education, work environments, and counseling approaches that are congruent with their own self-perceptions. The increased self-awareness that accompanies this developmental level is beneficial to clinicians, as it heightens awareness regarding their personal role in the counseling process, which translates to better boundaries with clients. Thus, these clinicians are less likely to feel personally responsible for client successes or setbacks.

Loganbill et al. (1982) provided similar descriptions for clinicians who are in the integration stage. They described these clinicians as having realistic views of the self that remain relatively stable. The authors indicated that clinicians in this stage are unlikely to become frightened or to feel guilt when they are confronted with areas that are weaker or less developed, since these clinicians are confident in their ability to grow and develop across multiple domains. Despite having a stable self-concept, these clinicians remain open to growth and development, and can dynamically adjust their values based on novel experiences and relationships.

Stoltenberg and McNeill (2010) articulated remarkably similar descriptions of clinicians who reach level three in their model. Again, these clinicians experience elevated self-awareness and self-confidence, and they value using the self as a therapeutic tool. This self-awareness results in a highly personalized approach with clients. While these clinicians have occasional doubts about their effectiveness, self-doubt is no longer debilitating. Supervisees at this level effectively use supervision time, and focus supervision on clients, while also monitoring and integrating their own personal reactions.

In addition to describing experienced clinicians as having high self-awareness and clear boundaries, Rønnestad and Skovholt (2003) also described experienced clinicians as actively embracing knowledge as relative. These clinicians are less likely to mechanically apply techniques, as they develop a profound awareness that there are not clear answers to the challenges they encounter in their work with clients. Theories and empirical evidence are also seen as relative, and they are not blindly applied to clients. Thus, experienced clinicians can effectively incorporate their personal and professional identities, set boundaries, learn from personal and client experience, and tailor treatment to each client's unique needs.

Supervisors working with substage six supervisees can provide space for supervisees to explore their personal experiences and awareness in the context of their work with clients. Similarly, exploring nuanced, contextual dynamics that present in counseling sessions may provide these supervisees with a framework to increase the amount of information that they synthesize when conceptualizing clients and the overall counseling process. Supervisors can also support supervisees in integrating large amounts of conceptual information – ranging from empirical evidence to self of the counselor – in the context of within and across session themes. While it is unlikely that clinicians at this stage will engage in formal supervision, additional development can

be fostered through collaborative peer relationships and peer consultation that is sought out in response to a specific need or limitation.

Reflective thinking: Substage seven. The seventh and highest substage in King and Kitchener's (1994) model involves synthesizing large amounts of information from diverse sources into coherent explanations for abstract problems. Explanations for problems are not considered set in stone, rather they are malleable when faced with novel evidence, information, or contexts. Clinicians and supervisors in stage seven actively critique working hypotheses, for example, client conceptualizations and treatment plans, as they are perpetually integrating additional information. Loganbill et al. (1982) described supervisees in the highest stage of their model as having the calm flexibility they need to continuously adjust to novel circumstances. In this way, stage seven thinkers embrace the notion that they can never know with complete certainty, while synthesizing information to evaluate the likelihood of multiple conclusions or solutions. These thinkers can differentiate between a broad range of potential contexts, while also integrating information from multiple contexts.

As this stage requires a high level of integration across multiple professional domains, it is analogous to Stoltenberg and McNeill's (2010) description of clinicians who reach level three integrated (3i). To reach this developmental level, a clinician must meet their description for level three across many domains that are relevant for work with clients including ethics, interpersonal differences, assessing, goal setting, theoretical orientation, conceptualizing, treatment planning, and intervening.

Rønnestad and Skovolt (2003) described what is arguably the highest developmental level. While they term this phase the senior professional phase, much of their description emphasized

developmental markers that are common in later life regardless of one's profession. These include coping with the aging process, existential concerns, and generativity.

Given the height of this developmental level, supervisory relationships are inherently peer to peer, rather than hierarchical. Conversations may emphasize later life development, including existential struggles and opportunities to give back to the profession and novice clinicians as well as critically exploring novel information in the context of existing, yet dynamic theories, models, or approaches. Critically challenging one another may enable these clinicians to continue integrating information across contextual domains.

Implications for Counselor Training & Preparation

The developmental theories in this article provide congruent implications that counselor training programs can use to conceptualize and support student development in order to adequately prepare counselors in training for clinical practice and supervision. These implications include constructing recursive learning experiences that support students' developmental trajectories across multiple intersecting domains. Using a recursive approach to build and structure content provides students with multiple opportunities to conceptualize content as they progress through developmental stages.

Taken together, the theories discussed in this article outline a clear developmental trajectory. Students who are in early developmental stages: (a) rely on external authority figures, (b) think dualistically, and (c) have low awareness of self and others. Conversely, higher developmental levels are identified by: (a) a balanced perspective of one's personal strengths and limitations, (b) complex thinking that includes diverse perspectives, and (c) high awareness of oneself and others (King & Kitchener, 1994; Loganbill et al., 1982; Rønnestad & Skovholt, 2003; Stoltenberg & McNeill, 2010). Counselor educators can use intentional program and course design

to build a curriculum that encourages students to develop within and across courses and achieve a baseline level of competency prior to practicum and internship experiences.

Educators who are designing counseling programs can account for student development by structuring content in courses as well as the sequence in which students take courses in ways that build awareness, decrease dependence on experts, and present information across multiple contexts. For example, many counseling programs are designed with courses that target each of the eight CACREP (2016) Professional Identity standards. Such a program may have one class that meets many of the Career Development standards, one class that meets the Social and Cultural Diversity standards, one class that meets the Research and Program Evaluation standards, and so forth. While this design is sensible in the context of accreditation standards, program evaluation, and student evaluation, it may not be ideal for encouraging students' cognitive complexity development, as it does not account for content building and integrating across courses or for students being exposed to divergent experiences, ideas, and theories.

Through intentional course and curricular design that begins with a clear vision of the desired results (i.e., Wiggins & McTighe, 1998; Wiggins & McTighe, 2012), a program that is set up using the one class per content area design can provide students opportunities to develop within a given course. For example, students in the training program in which the first author teaches are required to take a theories class early in the program. As the class happens early in the program, it is assumed that most students in the course are at lower developmental levels. While designing the class, the teacher can begin by identifying developmental outcomes as well as accreditation standards that must be met in the course. The teacher can then design and structure course content and activities so that students are given multiple opportunities to build self-awareness. For example, the second author requires students to observe recorded counseling sessions and identify

their personal reactions to each theory. Similarly, the second author also structures content to decrease reliance on expert opinions by sequencing assignments so students can compare different theorists and reflect on how a given theorist's ways of understanding client struggles might limit the applicability of a given theory for a specific client. In this example, students are presented with experiences that are intentionally designed around the outcome of reducing their reliance on experts, which defines King and Kitchener's (1994) first and second substages, thereby moving them toward the third substage. Thus, by using these backward course design approaches (i.e., Wiggins & McTighe, 1998; Wiggins & McTighe, 2012), instructors can intentionally design courses with the explicit objective of promoting cognitive complexity development.

Additionally, students' cognitive complexity development can be furthered by identifying developmental outcomes across courses. For example, the semester after they take their theories course, students might be required to take a diversity course. The diversity course can build on students' cognitive complexity development in the theories course by recursively cycling through the theories they used, while giving students opportunities to review what they learned in the theories course in the context of how the theories apply to culturally diverse clients. Applying content learned in one class to novel situations and contexts is congruent with movement from King and Kitchener's (1994) fourth substage, in which one begins viewing knowledge as abstract, to their fifth substage, in which one is can relate abstract concepts to one another.

Likewise, a research course might also build on a theories course by teaching students to evaluate empirically supported theories and evidence-based practices. This approach also provides students with opportunities to develop knowledge and skills in a single contextual domain, in this case a theories class, before they are asked to connect cultural and research domains to what they have learned. Like above, connecting multiple abstract domains requires one to achieve relative

thought, which aligns with King and Kitchener's (1994) fifth substage. Supervisors and educators wishing to take such an approach may benefit from further exploration of frameworks and techniques for fostering trainees' cognitive complexity development, such as Kindsvatter and Desmond's (2013) problem-based approach. They might also consider implementing instruments for measuring cognitive complexity (i.e., Welfare, 2006) across students' programs and clinical experiences.

Conclusion

Aligning developmental supervision models with King and Kitchener's (1994) stages bridges the conceptual gap between counselor education and counselor supervision. This alignment also provides counselor educators with a framework for including cognitive complexity development in course and curriculum design, as well as supervised clinical work. In this way, students' development can be conceptualized continuously from the time they begin training through supervised practice required for professional licensure.

Cognitive complexity development is an area that merits additional research. For example, research identifying factors that facilitate cognitive complexity development is needed (Welfare & Borders, 2010). Similarly, there is a need for empirically validated cognitive complexity scales, and research regarding the relationship between counselor cognitive complexity development and client outcomes is scant. Despite the need for additional research, the convergence of multiple theoretical perspectives across multiple decades speaks to the ongoing importance of conceptualizing counselors' cognitive complexity development. Further integrating these models into counselor training programs has the potential to bolster students' competence and preparation for clinical work.

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