

Journal of Mental Health Counseling
Volume 30/Number 4/October 2008/Pages 330-344

RESEARCH

Cognitive Style and Theoretical Orientation: Factors Affecting Intervention Style Interest and Use

**Casey A. Barrio Minton
Jane E. Myers**

Developmental Counseling and Therapy (DCT), an integrative model for assessing client cognitive-emotional style and selecting interventions, has been presented as a meta-theory for increasing intentionality in mental health treatment planning. To examine the usefulness of DCT for training and practice, student and professional counselors (N = 203) completed the Preferred Helping Styles Inventory, the Theoretical Orientation Profile Scale-Revised, and the Intervention Strategies Questionnaire. Intervention styles were related to both cognitive styles and theoretical orientations; intervention style use was predicted by cognitive style and intervention style interests. Implications for mental health counselor training and practice are discussed.

More than 500 reportedly effective approaches to counseling have been identified, yet research on most theories is limited and there is controversy about the efficacy of different interventions (Kazdin, 2006; Nathan, 2007). Luborsky, Singer, and Luborsky (1975) studied outcome research and concluded that all therapies are equally effective—a conclusion that has since been debated, refuted, but ultimately supported (Winter, 2006). Known as the “do-do bird verdict” (Luborsky, Rosenthal, & Diguier, 2002), this conclusion has led many counselors to self-identify as “eclectic” (Gerber, 1999), selecting among interventions to meet the needs of a particular client at a particular point in time.

Casey A. Barrio Minton is affiliated with the University of North Texas. Jane E. Myers is affiliated with the University of North Carolina at Greensboro. Correspondence concerning this article should be addressed to Casey A. Barrio Minton, Counseling Program, College of Education, University of North Texas, PO Box 310829, Denton, TX 76203-0829. E-mail: Casey.Barrio@unt.edu.

Critics of eclecticism have noted that "at its worst, eclectic practice consists of haphazardly picking techniques without any overall theoretical rationale" (Corey, 2004, p. 1). In contrast, integrative approaches offer theoretically consistent, intentional strategies for helping mental health counselors (MHCs) choose among the array of possible interventions (e.g., Ivey, 2000).

Integrative approaches seek to maximize intentionality through selection of interventions matched to counselor characteristics (Corey, 2004), counselor styles (Howard, Nance, & Myers, 1986), or client dynamics (Ivey, 2000). Seligman (2001) suggested that Ivey's Developmental Counseling and Therapy (DCT) "is ... the best developed and most promising of the integrated approaches to treatment" (p. 517), a conclusion supported more recently by both Gladding (2006) and Nugent (2005). Although DCT offers promise for increasing clinical effectiveness (Barrio Minton, 2008; Myers, Shoffner, & Briggs, 2002), most studies of the DCT model have focused on demonstrating the existence or clinical utility of Ivey's four cognitive-emotional-developmental styles (e.g., Kunkler-Peck, 1999; Rigazio-DiGilio & Ivey, 1990). Although Ivey, Ivey, Myers, and Sweeney (2005) proposed links between cognitive style and the effectiveness of specific choices, which are influenced by theoretical orientation (Worthington & Dillon, 2003), researchers have yet to examine the utility of the DCT model for selecting interventions.

The present study was undertaken to explore the relations between counselor cognitive/emotional style (CES), theoretical orientation, and intervention style. If the assumptions underlying the DCT model are correct, knowledge of these relations has the potential to enhance both MHC training and practice. We posed the following research questions: (1) Do counselors with higher CES preferences report stronger preferences for corresponding theoretical orientations and intervention styles, as hypothesized in the DCT model, than counselors who have lower CES preferences? and (2) What proportion of the variance in intervention style use can be predicted by CES and intervention style interest? A brief review of the literature concerning DCT and theoretical orientation is provided as a foundation for understanding the relations between the variables.

DEVELOPMENTAL COUNSELING AND THERAPY

DCT is an integrative metatheoretical model of counseling that was created to bridge the gap between theories of human development that serve as the foundation of the counseling profession and theories that inform the practice of counseling (Ivey, 2000; Ivey, 1993; Ivey et al., 2005). Based on a metaphorical interpretation of Platonic and Piagetian constructs, DCT provides the clinician with methods for conceptualizing and assessing four cognitive-emotional styles (sensorimotor, concrete, formal, and dialectic) and developing treatment or

intervention plans based on those styles (Ivey et al.).

DCT Cognitive-Emotional Styles

Although Platonic and Piagetian ways of knowing are considered relatively linear, Ivey (2000) and Ivey et al. (2005) argued that individuals must be able to move freely between styles. Thus, Ivey presented a spherical model of ways of knowing, with intelligence at the core and the four styles of experiencing and knowing at different points within the sphere. Functioning within each CES entails both assets and liabilities; it is hypothesized that problems stem from developmental blocks that are evidenced by an inability to use specific styles or an overuse of a particular style. Although they may present using a mixture of styles, individuals generally have one preferred CES that tends to be most descriptive of their thinking in relation to a particular presenting issue. Further, Ivey et al. discriminated between "early" and "late" aspects of each style that are necessary for normal development.

The sensorimotor CES is characterized by "focusing on the elements of immediate experience" (Ivey et al., 2005, p. 102). Individuals who operate within this modality focus on bodily experience in the here and now (Ivey & Rigazio-DiGilio, 2005); they may be overpowered by their senses (Ivey et al.). Early sensorimotor functioning involves the ability to describe and discuss one's feelings. Late sensorimotor clients are able to experience feelings within their body and begin to understand the impact of their feelings.

The concrete CES includes a focus on logical thought processes and an understanding of cause and effect relationships (Ivey, 2000). Individuals who utilize the early concrete style tend to focus on situational descriptions; they often provide extensive detail and linear accounts of isolated or individual stories (Ivey et al., 2005), focusing on what specifically happened without efforts at analysis or reflection (Ivey & Rigazio-DiGilio, 2005). Late concrete thinking is demonstrated through causal, if/then understanding or the ability "to think in terms of antecedents and consequences" (Ivey & Rigazio-DiGilio, p. 405).

The ability to think abstractly and reflect on one's experiences, patterns, and feelings is the hallmark of the formal CES (Ivey, 2000). The early formal individual demonstrates a preference for "reflecting on patterns of thought, emotion, and action" (Ivey et al., 2005, p. 103). "She or he is able to identify repetitive behavior, thoughts, and affect related to various similar situations and issues" (Ivey & Rigazio-DiGilio, 2005, p. 406). Late formal individuals present as even more self-reflective, demonstrating an understanding of the interrelationships among their patterns of thoughts, feelings, and behaviors.

A number of scholars (e.g., Lampert & Richards, 2003) have argued that postformal or dialectic thought represents a qualitative shift in ways of knowing. Those presenting in Ivey et al.'s (2005) dialectic CES work at "integrating

patterns of emotion and thought into a system" (p. 103). Early dialectic individuals demonstrate an ability to see multiple realities as equally valid and can examine the role of systems in the co-construction of reality. Dialectic clients tend to show a great deal of insight into their own experiences as well as the experiences of others. Such experiences tend to be associated with the larger systemic context, including cultural values, racism, and sexism (Ivey & Rigazio-DiGilio, 2005). The late dialectic client understands multiple perspectives and systems, challenges assumptions, and works to translate such understanding and integration into concrete action (Ivey et al.; Ivey & Rigazio-DiGilio).

The qualitative differences in ways of knowing inherent in these four CESs (the ways individuals understand and interact with the world) and the potential for developmental blocks in any of the styles suggest a need for style-specific interventions to help clients achieve change. The DCT process thus includes assessment of CES preferences in relation to presenting issues, determination of possible blocks, and selection of interventions matched to client preferences or mismatched to address blocks (Ivey et al., 2005).

DCT Intervention Styles

Within the DCT model, various counseling theories and related interventions are viewed as consistent with one of the four CESs (Ivey, 2000; Ivey, 1993; Ivey et al., 2005). Thus, MHCs may choose from a wide range of theories and techniques when selecting how to intervene with a particular client on a particular issue. When applying the DCT framework, an MHC who assesses a client as utilizing the sensorimotor style will likely use influencing skills that are drawn from strategies that are body-oriented (e.g., meditation, exercise, yoga) and here-and-now (e.g., imagery, Gestalt). To maximize client benefit an MHC working with a concrete client may employ narratives, assertiveness training, thought-stopping, brief and solution-focused approaches, and skills training. Those who operate in the late concrete style may similarly benefit from cognitive approaches like rational emotive behavior therapy and reality therapy. Formal clients will benefit most from approaches that encourage reflection, such as person-centered and existential/humanistic counseling, cognitive work, and psychodynamic theories. Finally, the dialectic client may best benefit from mutual or balanced styles; corresponding theoretical approaches, such as multicultural counseling and therapy, feminist therapy, family approaches, and social action, match this style.

DCT provides not only a model for assessment and treatment planning but also a theoretical approach for understanding MHC intervention preferences. Although counselors are encouraged to select interventions based on the client's presenting CES, counselor CES preferences are hypothesized to influence preferences for and use of various counseling strategies (Ivey et al., 2005).

For example, sensorimotor MHCs will prefer body-oriented or Gestalt approaches, and concrete MHCs will prefer more behavioral approaches. If the assumptions underlying DCT are correct, the style preferences of MHCs and their interest in and use of related interventions should be associated with their own CES and theoretical orientations.

Theoretical Orientation

Theoretical orientation refers to a set of assumptions that provides a framework for generating hypotheses, guiding interventions, and conceptualizing the counseling process (Poznanski & McLennan, 1995). Worthington and Dillon (2003) observed that, although outcome studies do not support the differential effectiveness of different theories, there is "substantial evidence that counselors of different theoretical orientations exhibit different epistemic beliefs, verbal response behavior, and specific therapeutic techniques" (p. 95). Identification with particular theories has been associated with personal values (Murdock, Banta, Stromseth, Viene, & Brown, 1998) and personality characteristics, such as need for interpersonal dominance and control, neuroticism, and openness (Poznanski & McLennon, 2003). In a study of five marriage and family therapists Bitar, Bean, and Bermúdez (2007) concluded that theoretical identification involves both personal and professional contexts; personal philosophy and personality were the strongest influences on choice of theory. In contrast, Freeman, Hayes, Kuch, and Taub (2007) failed to find any significant personality-based preference for three broad categories of theoretical orientation (affective, behavioral, and cognitive) in a sample of 132 counselor education students.

Although few researchers have explored factors related to identification with eclectic or integrative approaches, Constantine (2001a) studied 130 counselors and reported a relationship between levels of multicultural training, eclectic/integrative theoretical orientation, affective attitudes, and conceptualization of a culturally diverse client. In a second study of 105 school counseling students, those who self-identified as eclectic/integrative scored higher on self-reported levels of multicultural counseling competence (Constantine, 2001b). These studies provide evidence that endorsement of flexible intervention strategies is associated with greater competence, especially regarding work with diverse clients, and underscore the need for studies of factors related to choice of interventions.

METHOD

The populations of interest for this study were practicing professional counselors working in community mental health, private practice, and other settings and advanced student counselors. Because participants were required to have

knowledge of a number of counseling interventions and report their preferences and practices, participants had to have completed or be in the process of completing at least a master's degree in counseling and have completed at least one formal course in counseling theory and one semester of internship. Upon Institutional Review Board approval, participants were recruited from counselor education training programs throughout the United States and professional counseling associations in North Carolina via listserv postings or e-mails generated as a result of modified snowball sampling. Potential participants were provided with an electronic link to informed consent forms, instruments, and procedures for entering a drawing for a \$100 gift certificate.

Participants

Of the 287 individuals who accessed the data collection site, 28 did not meet participation criteria and 53 either did not begin or did not complete all instruments. Due to the nature of the sampling procedures, an accurate response rate is impossible to determine. Of the 203 eligible participants who completed all instruments, 85.6% were female. Participants reported their ethnicities as White (80.1%), Black (7.0%), Latino/Latina (7.0%), Asian (4.0%), Native American (0.5%), and bi/multiracial (2.0%). They ranged in age from 23 to 70 ($M = 38.52$, $SD = 11.91$) with almost half (49.5%) between 26 and 40.

Just over 1 in 5 participants were entry-level student counselors (22.2%); the remainder were master's-level (57.1%) and doctoral-level (5.9%) professional counselors and doctoral students (14.8%). Participants reported between 6 months and 32 years of professional counseling experience ($M = 7.78$, $SD = 7.44$). One in 5 (20.1%) reported one year or less of counseling experience, 34.2% reported 2 to 5 years, 19.1% reported 6 to 10 years, and 22.5% reported 11 or more years.

Instrumentation

In addition to a demographic form, three self-report instruments were used: the Preferred Helping Styles Inventory (PHSI; Ivey, 1993), the Theoretical Orientation Profile Scale-Revised (TOPS-R; Worthington & Dillon, 2003), and the Intervention Strategies Questionnaire (ISQ; Barrio, 2006; Barrio Minton & Myers, 2007).

Preferred Helping Styles Inventory. The PHSI was developed by Ivey (1993) as a method for exploring counselors' cognitive/emotional style preferences in a variety of settings or situations. The original instrument, which is the only published measure of CES, consisted of 10 situations representing counseling and personal experiences, each with four potential responses representing the four styles. Respondents ranked each of the four responses according to preference for each situation. Due to low reliabilities observed in pilot studies of the instrument, we obtained permission to revise it to include only items dealing

with personal experiences. In addition, each item was rewritten as four separate items with individual Likert-type responses. The revised PHSI consisted of 20 items that participants rated using a seven-point Likert scale ranging from 1 = "not at all like me" to 7 = "most like me." Scale totals were computed by adding scores for each of the corresponding items; higher scores indicate greater endorsement of the CES.

Because the PHSI was created primarily to prompt discussion and self-exploration, there have been no systematic empirical investigations of its psychometric properties. A principal component analysis with Varimax rotation revealed that 15 of the 20 items loaded cleanly on four components theoretically consistent with the four CESSs. Together, these components accounted for 53.10% of the variance in the data. The scores derived from this solution were used in our data analyses. Cronbach's alpha reliabilities for the revised scales were as follows: Sensorimotor = .66, Concrete = .63, Formal = .68, Dialectic = .52.

Theoretical Orientation Profile Scale-Revised (TOPS-R). Worthington and Dillon (2003) designed the TOPS-R "to measure theoretical orientation among counselors and trainees" (p. 95). It contains six factors corresponding to each of six predominant theoretical approaches (psychoanalytic/psychodynamic, humanistic/existential, cognitive-behavioral, family systems, feminist, and multicultural) that assess the degree to which an individual self-identifies with a theoretical school, conceptualizes from the perspective of the school, and uses methodology consistent with the theoretical perspective.

The 18 self-report items are rated on a 10 point-scale; higher scores reflect greater endorsement of the theoretical orientation. Worthington and Dillon (2003) reported that the six factors accounted for 87.5% of the variance in their data, and factor loadings for all items ranged from .86 to .96. They also reported strong evidence of connections between theoretical self-ascription and theoretical orientation, as predicted by the TOPS-R. In the current study, scales yielded the following alpha coefficients: psychoanalytic/dynamic = .94; humanistic/existential = .97; cognitive/behavioral = .95; family systems = .96; feminist = .94; and multicultural = .91.

Intervention Strategies Questionnaire. The ISQ was developed to assess counselors' preferences for and use of common counseling interventions or strategies consistent with the tenets of DCT (Barrio, 2006; Barrio Minton & Myers, 2007). It was based on study of more than 150 different counseling theories and interventions identified by counselor educators and practicing counselors as integral to counseling practice. Through a series of field tests and factor analyses, the resulting instrument was refined to 16 items deemed by individuals familiar with advanced DCT theory and practice to be familiar to most counselors and representative of the four DCT intervention styles.

ISQ responses are rated on two 4-point factor-derived scales, anchored at zero. Respondents are asked to rate interest in each strategy (i.e., "rate how

interested you are in using this strategy or intervention with clients”) and use of each strategy (i.e., “in comparison to the other interventions and strategies you use, how often do you...”). The four Interest and four Use scale scores are computed by averaging item ratings for each intervention with which the participant indicates familiarity and multiplying by four to form a final score. Scores on each scale range from 0 to 12; higher scores indicate more interest in or use of the intervention style. In the current study, internal consistency coefficients for the four Interest scales were: Sensorimotor = .84, Concrete = .85, Formal = .71, and Dialectic = .82. The corresponding alpha coefficients for the Use scales were .73, .76, .68, and .78.

Data Analysis

Descriptive statistics were computed for each scale and compared to norms for the instruments; we found no anomalies that would prevent further examination of the research questions. Analyses were completed using SPSS 14.0 and independent sample t-test and multiple regression analyses. Due to small cell sizes, within-group comparisons based on gender and ethnicity were not feasible. Except as noted otherwise, an alpha level of .05 was used to determine statistical significance.

RESULTS

Research Question 1: Intervention Style and Theoretical Orientation Preferences in Relation to CES

We hypothesized that individuals with higher CES preferences would have greater preferences for corresponding intervention styles and theoretical orientations than those with lower CES preferences. Independent-sample t-tests were computed using individuals who scored in the highest and lowest quartile for each style as contrasted groups. This process ensured that sample sizes were roughly equal and that comparison groups were sufficiently unique for necessary analyses.

All results were in the hypothesized direction (see Table 1), and nearly all results were statistically significant ($p < .05$). Given the lack of similar research in this area, we used Cohen's (1988) cautionary guidelines for interpretation of effect sizes, wherein $d = .2$ indicates small effect, $d = .5$ indicates medium, and $d = .8$ indicates large; thus, effect sizes were all medium to large. The high Sensorimotor CES group reported greater Sensorimotor Interest and Use and preference for Humanistic theoretical orientation. The high Concrete CES group reported higher Concrete Interest and preference for cognitive-behavioral orientations; the effect sizes were smaller than for the Sensorimotor comparisons. The high Formal CES group reported higher Formal Interest and Use along with theoretical orientation preferences for Psychodynamic and

Table 1. T-Tests of Mean Differences in Interest, Use, and Orientation for Lowest and Highest Quartiles

	Lowest Quartile		Highest Quartile		<i>t</i>	Cohen's <i>d</i>		<i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		<i>df</i>	<i>p</i>	
Sensorimotor Cognitive Style								
Interest	7.13	3.84	9.19	2.99	-2.50	68	.02	.60
Use	5.46	3.29	7.80	3.04	-3.10	68	<.01	.74
Humanistic	16.70	7.09	19.43	6.20	-1.73	70	.09	.41
Concrete Cognitive Style								
Interest	8.00	3.46	9.36	2.74	-2.07	88	.04	.44
Use	7.69	3.53	8.83	2.68	-1.72	88	.09	.36
Cognitive-Beh.	20.28	5.52	22.80	5.57	-2.15	88	.03	.45
Formal Cognitive Style								
Interest ^a	6.26	3.02	8.67	2.26	-3.67	62.68	<.01	.90
Use	5.08	2.52	7.34	2.55	-3.56	62	<.01	.89
Psychodynamic	8.84	5.29	13.03	6.75	-2.83	64	<.01	.69
Humanistic	13.95	6.78	19.62	7.21	-3.28	64	<.01	.81
Dialectic Cognitive Style								
Interest	7.38	3.29	9.24	2.50	-2.69	73	<.01	.64
Use	4.83	2.90	7.34	2.67	-3.86	73	<.01	.90
Family Systems	16.11	7.17	20.70	6.58	-2.86	74	<.01	.67
Feminist	10.20	7.07	13.95	8.37	-2.12	74	.04	.48
Multicultural	19.58	6.88	23.42	5.17	-2.68	74	<.01	.63

^a Assumption regarding homogeneity of variance not met. Cohen's *d* computed via pooled *SD*.

Humanistic approaches; these effects were all large. Finally, the high Dialectic CES group reported higher Dialectic Interest and Use along with higher preferences for Family Systems, Feminist, and Multicultural orientations; effect sizes were medium to large.

Research Question 2: Predictors of Intervention Style Use

Standard multiple regression analyses were used to assess the extent to which corresponding CES preferences and intervention style interests predicted intervention style use. Almost half of the variance in Sensorimotor, Concrete, and Formal Use and a quarter of the variance in Dialectic Use was accounted for (see Table 2) by interest in those intervention styles. In all cases, intervention style interest accounted for over 90% of the explained variance. However, examination of structure coefficients indicated that corresponding cognitive

style preferences also accounted for between 9% (Concrete) and 27% (Dialectic) of the explained variance in intervention style use.

Table 2. Multiple Regressions Predicting Intervention Style Use from Cognitive Style and Intervention Style Interest

	<i>F</i>	<i>p</i>	Adj. <i>R</i> ²	<i>R</i> ²	β	<i>p</i>	<i>r</i> _s ²
Sensorimotor Use	71.48	<.001	.42	.42			
Sensorimotor Cognitive Style					.11	.04	.16
Sensorimotor Interest					.62	<.001	.97
Concrete Use	67.12	<.001	.40	.40			
Concrete Cognitive Style					.06	.28	.09
Concrete Interest					.62	<.001	.99
Formal Use	77.44	<.001	.44	.44			
Formal Cognitive Style					.10	.08	.19
Formal Interest					.63	<.001	.98
Dialectic Use	36.81	<.001	.27	.27			
Dialectic Cognitive Style					.15	.02	.27
Dialectic Interest					.46	<.001	.92

DISCUSSION

The purpose of this study was to explore the relationships between counselors' cognitive/emotional styles, theoretical orientations, and intervention styles. The results support the validity of DCT constructs as a foundation for mental health counseling practice. Many expected relations were found between the four CESs, several theoretical orientations, and four intervention styles. Individuals who had stronger CES preferences reported stronger corresponding intervention styles and theoretical orientations than those with lower CES preferences; examination of effect sizes indicated that these relations were moderate to strong. CES preferences and intervention style interests were also highly predictive of the intervention styles used by counselors in our sample.

Overall, the patterns of relations among the scales support DCT theory and earlier findings that a large percentage of MHCs use a variety of methods and identify as eclectic or integrative in orientation (Poznanski & McLennan, 1998). DCT provides a structure for helping select interventions and defending those selections based on both theory and research. This integrative approach is particularly important in managed care settings, where intentional selection of interventions can affect third-party reimbursements and provide a hallmark of

ethical and effective practice.

As hypothesized, CES and intervention styles were positively related. This was an encouraging finding that was consistent with DCT theory but not previously tested empirically. Early in most training programs MHCs are encouraged to identify personal theoretical preferences and reflect on their own counseling philosophy and preferred theory. Given these findings, it might be useful to also assess student cognitive styles, since these are associated with their intervention style preferences and theoretical orientations. Adding the dimension of cognitive style to counselor preparation could broaden students' understanding of how they make meaning of their own life experiences and how that relates to their theoretical choices.

In particular, participants with high and low CES preferences reported different preferences for and use of most corresponding intervention styles and theoretical orientations; CES and intervention style interest were highly predictive of intervention style use. In contrast to other findings, those with high Concrete CES preferences did not report higher Concrete Use than the low Concrete CES group, and Concrete CES was not a strong predictor of Concrete intervention use. This finding may reflect the common use of and consequent necessity for both interest in and use of Concrete interventions. This trend was explained by Ivey et al. (2005) as a natural extension of Piaget's belief that only 75% of persons become fully formal operational thinkers. That leaves at least 25% who live out their lives thinking in a primarily concrete manner and who are hence more responsive to concrete interventions.

Although the current findings suggest strong support for the basic tenets of DCT, the lack of a strong, valid, and reliable measure of cognitive/emotional style continues to be a limitation in DCT research. Even with modifications, the Preferred Helping Styles Inventory scale alphas were low for our sample of counselors; hence, results with this measure should be interpreted as possible trends that merit further study. Though the ISQ measures only one aspect of the DCT model, its psychometric properties are promising, and the results support the clinical utility of DCT theory. Additional study is needed to determine whether findings that the concrete style may be more distinct than the sensorimotor, formal, and dialectic styles are indeed accurate; such study will require the use of alternative measures of cognitive/emotional style preferences. In addition, the ISQ relies heavily on self-report data, and the methodology applied in this study required counselors to make generalizations about their practice. Future research should attend to smaller variations for individual counselors and may involve asking participants to record interventions used over a specified time period or with a specific client. This would allow for more in-depth examination of the influence of counselor and client variables on intervention style.

IMPLICATIONS FOR MENTAL HEALTH COUNSELING PRACTICE

Within the DCT model, Ivey et al. (2005) proposed that how clients make meaning is of central importance. These authors observed that rapport is established more quickly when counselors intentionally match interventions to a client's preferred cognitive/emotional style. From the DCT perspective, MHC awareness of cognitive styles is critical and underlies the totality of the counseling process. While they may have preferences for certain theoretical orientations, effective MHCs will use intervention styles that match client needs rather than their own preferences and that are theoretically consistent. When such interventions do not match the MHC's preferred cognitive style, greater self-awareness may be needed. A mismatch of the MHC's preferred style and the client's needs will require even more effort than usual for the MHC to understand the client's meaning-making processes. The preliminary findings from outcome studies by Barrio Minton (2008) suggest that such "precision empathy" will enhance the chances of successful counseling outcomes.

The results of the current study provide strong support for the assumption that MHC choices of intervention styles are considerably influenced by their own cognitive/emotional style preferences and professional interests. Thus they are encouraged to assess the ways their own interests drive the styles they use and do not use with clients. Questions for self-exploration include:

1. What is my most preferred cognitive style? What is my least preferred style?
2. How would I characterize my client's most and least preferred styles?
3. How do the interventions I use correspond to my styles? My client's styles?
4. In which intervention styles do I have the most and the least competency? What further education do I need to develop these competencies?

In this study, sensorimotor, formal, and dialectic styles were found to be related to CESs and theoretical orientations in ways that the concrete style was not. If indeed a preponderance of clients present with a concrete style preference, both MHCs and MHCs in training may benefit from exploring their comfort with concrete as well as abstract clients and interventions. In particular, MHCs may benefit from specific preparation for work with concrete cognitive/emotional styles.

Within DCT, precision empathy is viewed as the counselor's ability to demonstrate understanding to the client by communicating via the client's preferred mode of communication (Ivey et al., 2005). Counselors who sense disconnects in relationships with clients may explore ways they may be communicating using different cognitive styles. MHCs may use existing DCT assess-

ment interviews (Ivey & Rigazio-DiGilio, 2005) to be proactive about assessing client preferences and blocks. In addition, straightforward discussion about client intervention style preferences may help MHCs to begin the process of intentional matching and mismatching based on DCT principles. Of course, MHCs who choose to apply DCT principles are encouraged to seek supervision from an individual experienced with DCT assessment, case conceptualization, and treatment planning practices.

CONCLUSIONS

The significance of the Ivey et al. (2005) DCT model lies in its strength as a metatheory that incorporates strategies for intentional selection of the interventions most likely to succeed at a given point in time with a given client, based on his or her preferred cognitive style and developmental blocks. If the assumptions underlying DCT are accurate, as this study suggests, practitioners will find that use of DCT may increase the success of counseling interventions and outcomes. MHCs may find the results of this study useful because it supports a new approach to assessment, case conceptualization, and treatment planning that could be integrated into existing practice.

REFERENCES

- Barrio, C. A. (2006). Testing the validity of Developmental Counseling and Therapy (DCT) as a theoretical approach to treatment planning: The relationships among cognitive style, ways of knowing, theoretical position, and intervention style in counselors and counselors-in-training (Doctoral dissertation, University of North Carolina at Greensboro). *Dissertation Abstracts International*, 66(07), 2499.
- Barrio Minton, C. A. (2008). Developmental Counseling & Therapy style preferences and counseling relationship: A study of counselors and clients. Manuscript submitted for publication: University of North Texas.
- Barrio Minton, C. A., & Myers, J. E. (2007). Measuring counselor technique preferences: Initial development of the Intervention Styles Questionnaire. Manuscript submitted for publication: University of North Texas.
- Bitar, G. W., Bean, R. A., & Bermúdez, J. A. (2007). Influences and processes in theoretical orientation development: A grounded theory pilot study. *American Journal of Family Therapy*, 35, 109–121.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum.
- Constantine, M. G. (2001). Multicultural training, theoretical orientation, empathy, and multicultural case conceptualization ability in counselors. *Journal of Mental Health Counseling*, 23, 357–372.
- Constantine, M. G. (2001). Theoretical orientation, empathy, and multicultural counseling competence in school counselor trainees. *Professional School Counseling*, 4, 342–348.
- Corey, G. C. (2004). Designing an integrative approach to counseling practice. *VISTAS Online*. Retrieved September 1, 2007, from <http://counselingoutfitters.com/vistas/vistas04/29.pdf>.

- Freeman, M. S., Hayes, B. G., Kuch, T. H., & Taub, G. (2007). Personality: A predictor of theoretical orientation of students enrolled in a counseling theories course. *Counselor Education & Supervision, 46*, 254–265.
- Gerber, S. (1999). *Enhancing counselor intervention strategies: An integrational viewpoint*. Philadelphia: Accelerated Development.
- Gladding, S. (2006). *Counseling: A comprehensive profession* (6th ed.). Englewood Cliffs, NJ: Prentice Hall.
- Howard, G. S., Nance, D. W., & Myers, P. (1986). Adaptive counseling and therapy: An integrative, eclectic model. *Counseling Psychologist, 14*, 363–442.
- Ivey, A. E. (1993). *Developmental strategies for helpers: Individual, family, and network interventions*. North Amherst, MA: Microtraining Associates. (Original work published 1991)
- Ivey, A. E. (2000). *Developmental therapy: Theory into practice*. North Amherst, MA: Microtraining Associates. (Original work published 1986)
- Ivey, A. E., Ivey, M. B., Myers, J. E., & Sweeney, T. J. (2005). *Developmental counseling and therapy: Promoting wellness over the lifespan*. Boston: Lahaska Press.
- Ivey, A. E., & Rigazio-DiGilio, S. A. (2005). The standard cognitive/emotional developmental classification system. In A. Ivey, M. Ivey, J. Myers., & T. Sweeney, *Developmental counseling and therapy: Promoting wellness over the lifespan* (pp. 402–407). Boston: Lahaska Press.
- Kazdin, A. E. (2006). Mechanisms of change in psychotherapy: Advances, breakthroughs, and cutting-edge research (do not yet exist). In R. R. Bootzin & P. E. McKnight (Eds.), *Strengthening research methodology: Psychological measurement and evaluation* (pp. 77–101). Washington, DC: American Psychological Association.
- Kunkler-Peck, K. P. (1999). The development and initial validation of the supervisee cognitive-developmental profile questionnaire (Doctoral dissertation, University of Connecticut, 1999). *Dissertation Abstracts International, 60*(11A), 4196.
- Lampert, M., & Richards, F. A. (2003). Four postformal stages. In J. Dermick, & C. Andreoletti (Eds.), *Handbook of adult development* (pp. 99–111). New York: Kluwer Academic/Plenum.
- Luborsky, L., Rosenthal, R., & Diguier, L. (2002). The Dodo bird verdict is alive and well—mostly. *Clinical Psychology: Science and Practice, 9*, 2–12.
- Luborsky, L., Singer, B., & Luborsky, L. (1975). Comparative studies of psychotherapies. *Archives of General Psychiatry, 32*, 995–1008.
- Murdock, N. L., Banta, J., Stromseth, J., Viene, D., & Brown, T. M. (1998). Joining the club: Factors related to choice of theoretical orientation. *Counselling Psychology Quarterly, 11*, 63–77.
- Myers, J. E., Shoffner, M. F., & Briggs, M. K. (2002). Developmental counseling and therapy: An effective approach to understanding and counseling children. *Professional School Counseling, 5*, 194–202.
- Nathan, P. E. (2007). Efficacy, effectiveness, and the clinical utility of psychotherapy research. In S. G. Hofmann & J. Weinberger (Eds.), *The art and science of psychotherapy* (pp. 69–83). New York: Taylor & Francis.
- Nugent, F. A. (2005). *Introduction to the profession of counseling* (4th ed.). Upper Saddle River, NJ: Prentice-Hall.
- Poznanski, J. J., & McLennan, J. (1995). Conceptualizing and measuring counselors' theoretical orientation. *Journal of Counseling Psychology, 42*, 411–422.
- Poznanski, J. L., & McLennan, J. (1998). Theoretical orientations of Australian counselling psychologists. *International Journal for the Advancement of Counselling, 20*, 253–261.
- Poznanski, J. L., & McLennan, J. (2003). Becoming a psychologist with a particular theoretical orientation to counseling practice. *Australian Psychologist, 38*, 223–226.
- Rigazio-DiGilio, S., & Ivey, A. (1990). Developmental therapy and depressive disorders: Measuring cognitive levels through patient natural language. *Professional Psychology: Research and Practice, 21*, 470–475.

- Seligman, L. (2001). *Systems, strategies, and skills of counseling and psychotherapy*. Upper Saddle River, NJ: Prentice-Hall.
- Winter, D. (2006). Avoiding the fate of the Dodo bird: The challenge of evidence-based practice. In D. Loewenthal & D. London (Eds.), *What is psychotherapeutic research?* (pp. 41–46). London: Karnac Books.
- Worthington, R. L., & Dillon, F. R. (2003). The theoretical orientation profile scale-revised: A validation study. *Measurement and Evaluation in Counseling and Development*, 36, 95–105.