Graduate counseling students' learning, development, and retention of knowledge

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Abstract: The present study investigated 52 graduate counseling students' levels of ethical and legal knowledge (Lambie, Hagedorn, & Ieva, 2010) and social-cognitive development (Hy & Loevinger, 1996) at three points: (a) prior to a counseling ethics course, (b) at the completion of the course, and (c) four months later. Students' ethical and legal knowledge scores increased and they retained their learning; however, their social-cognitive development did not change. Implications for the scholarship of teaching and learning are discussed.

Keywords: counselor education and development, ethical and legal knowledge, scholarship of teaching and learning, social-cognitive development

Counseling is a complex and dynamic interactional process where counselors necessitate a specific knowledge base (e.g., ethical standards and legal statutes; Council for Accreditation of Counseling and Related Educational Programs [CACREP], 2009) and dispositions (e.g., adaptability, empathy, flexibility, wellness) in order to provide ethical and effective services to clients with diverse needs. Counselors scoring at higher levels of social-cognitive maturity (Loevinger, 1998) are more empathic, flexible, well, autonomous, and adaptive to stress than counselors are lower levels of development (e.g., Borders, 1998; Lambie, Smith, & Ieva, 2009; Sheaffer, Sias, Toriello, & Cubero, 2008). Therefore, graduate counseling students with higher levels of ethical and legal knowledge and social-cognitive development possess both knowledge and dispositions to support their effective work with diverse clients. Subsequently, graduate counseling preparation programs are tasked with promoting their students' counseling related knowledge and social-cognitive maturity. Nevertheless, investigation of effective pedagogy (the scholarship of teaching and learning [SoTL; Hutchinson, Huber, & Ciccone, 2011]) in counseling preparation programs to promote students' learning and development is limited.

The acquisition of counseling knowledge following the completion of a content specific course would logically result in higher achievement test scores; however, the retention of students' learning months following the conclusion of the course is unknown. In addition, social-cognitive development is difficult to promote in short periods of time (e.g., Lambie, Hagedorn, & Ieva, 2010); nevertheless, investigations of developmental growth within a sample of graduate students over an extended period of time (seven months) is limited. Therefore, this study sought to identify change in graduate counseling students' ethical and legal knowledge and social-cognitive development at three points: (a) prior to a counseling ethics course, (b) at the completion of the ethics course, and (c) four months following the completion of the ethics course; examining students' learning, developmental growth, and retention of knowledge.

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I. Ethical and Legal Knowledge and Social-Cognitive Development.

Scholars note the importance of *ethical and legal knowledge* (ELK) and *social-cognitive development* (SCD) in the preparation of graduate counseling students. Therefore, we review these two constructs to set the context for SoTL study that follows.

Counselors necessitate sound ethical (best practice for a profession) and legal (minimal acceptable practice tolerated by society) knowledge and the ability to utilize their counseling knowledge in their works with diverse clients (e.g., Lambie, Ieva, & Ohrt, 2012). In addition, CACREP (2009) requires that students in accredited graduate counseling programs are able to demonstrate a mastery of the ethical standards of their professional organizations and credentialing bodies, as well as the skills necessary to implement ethical and legal practices in their work with clients (*Standard, II.G.1.j.*). Therefore, counseling students need to acquire their ELK during their preparation program and retain their knowledgebase as they transition into practitioners.

Common ethical and legal concepts required for counseling students' ethical practice emerged when reviewing the counseling literature (e.g., American Counseling Association [ACA], 2005; American School Counselor Association [ASCA], 2010; Corey, Corey, & Callanan, 2010; Cottone & Tarvydas, 2007; Welfel, 2009). For example, ELK concepts consistent in the counseling literature include (a) confidentiality and privileged communication, (b) due process, (c) Kitchener's (2000) five moral principles (autonomy, beneficence, nonmalificience, justice or fairness, and loyalty or fidelity), (d) negligence and malpractice, and (e) abuse of children and the elderly. Graduate counseling preparation programs may infuse ELK throughout their curriculum and/or require a specific course in counseling ethics and legal practice (CACREP, 2009). Nonetheless, counseling students need to demonstrate a level of competency regarding their ELK (ACA, 2005; CACREP, 2009; National Council for Accreditation of Teacher Education, 2008), supporting their ethical delivery of services. However, there is a paucity of research examining pedagogy supporting graduate counseling students' learning and retention of ELK.

Counseling preparation programs may use various methods to disseminate ethical and legal information to their students. A common dissemination method of ELK is through the use of textbooks that supplement counseling students' course content (e.g., Corey et al., 2010; Stone, 2009; Welfel, 2009). To support students' ELK development, instructors may employ multiple pedagogical strategies in their counseling ethics courses, such as lecture, group discussions, and reviewing and processing case studies and ethical dilemmas (Vanek, 1990). It stands to reason that an effective approach to foster students' ELK is through multiple pedagogical strategies (e.g., role-plays, application of ethical decision-making models, and comparing and contrasting ethical codes with specific laws), matching students' different learning styles (e.g., auditory, visual, kinesthetic, reflecting, acting, reasoning logically, reasoning intuitively, and analyzing; Pritchard, 2008). Therefore, investigating students' learning and retention of knowledge per the pedagogy employed in graduate counseling ethics courses is warranted.

The application of counseling students' ELK correlates to their level of cognitive development (Rest, Narvaez, Bebeau, & Thoma, 1999). In addition, counselors' level of ethical reasoning relates to their cognitive development in that higher developmental levels increased their ability to analyze complex and fluctuating ethical dilemmas (Dufrene, 2000). Hence, counseling students' at higher levels of social-cognitive development theoretically are better able to apply their ELK in diverse situations (ethical decision-making; Lambie et al., 2012).

Social-cognitive development (SCD), or *ego development* (Loevinger, 1998), draws from other stage theories of human development (e.g., Piaget, 1955). In Loevinger's developmental theory, SCD is a holistic personality construct that incorporates cognitive, moral, self, interpersonal, and character development (Lambie, 2007). The SCD construct is the lens for which individuals make meaning of their experiences and emotions (Noam, Young, & Jilnina, 2006). As graduate counseling students' SCD matures, they progress towards more complex levels of meaning-making, impulse control, interpersonal relations, and intrapersonal congruence (Cohn & Westenberg, 2004).

Regarding the counseling preparation programs, levels of SCD "mark important distinctions in the ways, and degrees of complexity with which individuals understand the self, others, and social situations" (Bauer & McAdams, 2004, p. 115). As students' SCD matures, they become more flexible and adaptive to their environment and interpersonal interactions (Cook-Greiter & Soulen, 2007). Loevinger's (1998) theory delineates eight distinct SCD levels that are equilibrated structures that develop in an invariant hierarchical sequence, progressing to increased personal and interpersonal awareness, autonomy, ability to think complexly, and enhanced capacity to self-regulate (Manner, Durkin, & Nesdale, 2004). When students are at lower levels of SCD, meaning-making is simplistic; conversely, when students are at more mature levels, they are more attune to recognize incongruence and conflict, interdependency and mutuality, and systemic influences on their lives (Lambie et al., 2010).

SCD is an equilibration model wherein counseling students' growth relates to their adaptive responses (accommodation) and their interactions with the environment. Therefore, when students are confronted with experiences that are incongruent to their cognitive scheme, dissonance and developmental disequilibrium is evoked (e.g., ethical dilemma with no definitive solutions; Manner & Durkin, 2000). So as to restore equilibrium, students either adapt to their environment by assimilating the new information into their current schema (resulting in developmental stability), or they alter their schema to the new information (resulting in developmental growth; Lambie & Sias, 2009). Within a graduate counseling ethics course, the intentional introduction and discussion of complex ethical dilemmas (e.g., a case where a client's right to confidentiality conflicts with the counselor's duty to warn and protect) may induce disequilibrium, which may result in an assimilative and/or accommodative response.

Researchers have investigated the relationship between graduate counseling students' levels of SCD (Loevinger, 1998) and other desirable counseling constructs, such as counseling students' acquisition of counseling skills, effectiveness with clients, abilities to cope with stress during internship experiences and abilities, and levels of wellness (e.g., Borders, 1998; Lambie et al., 2009; Walter & Lambie, 2012). Nevertheless, change in graduate counseling students' SCD over an extended period of time in their preparation program has *not* been investigated.

II. Purpose of the Study.

Given the importance of ELK in graduate counseling preparation program, and the correlation between SCD and desirable counselor qualities (e.g., counseling skills and effectiveness; Borders, 1998; Lambie et al., 2009), we examined the influence of counseling ethics courses on students' acquisition and retention of knowledge and developmental growth in an effort to identify potential implications for pedagogy in graduate counseling preparation programs. In addition, we investigated potential differences in students' learning, retention of knowledge, and developmental growth between two sections of the counseling ethics courses to ascertain

possible pedagogical factors influencing students. Therefore, the two research questions investigated were: Are graduate counseling students' levels of ELK and SCD different at three points in their preparation program: (a) prior to a counseling ethics course, (b) at the completion of the ethics course, and (c) four months following the completion of the ethics course? and Are there mean differences in graduate counseling students' ELK and SCD scores who are enrolled in two different sections of counseling ethics courses?

III. Method.

A. Procedures and Participants.

The sample included 52 graduate counseling students at a large metropolitan university in the southeastern United States. Approval to conduct the study was obtained from the university's Institutional Board Review. To protect the rights and confidentiality of participants, participation was voluntary, students' names and identifying information were *not* collected, and none of the data collected was reviewed or scored until after the course was completed and grades had been submitted. We introduced the study and provided informed consent to potential participants (using a waiver of documentation of consent to participate in research), and then administered the data collection instrument packets three times (a) during the first class meetings of two counseling ethics courses (mid-May), (b) during the final class meeting of the two counseling ethics courses (early August), and (c) four month following the completion of the two ethics courses (mid-December). Specifically, during the first class meeting, envelopes containing a waiver of consent to participate in research form and the two data collection instruments were distributed to participants who were asked to write down the number of their envelope (e.g., #7A) somewhere in their personal effects. During the final class meetings, participants collected the envelope (which contained the same informed consent and data collection instruments) that corresponded to the number they wrote down from the first class meeting (e.g., #7A retrieved #7B). For the third data collection point, all the students enrolled in the two counseling ethics courses were invited to complete the assessment instruments (e.g., #7A or #7B retrieved data collection packet #7C) and offered a small incentive for their participation. Therefore, if participants chose *not* to partake in the investigation, they could simply leave the data collection instruments blank and the researchers were unable to identify their identity (data were kept anonymous to the researchers). Nevertheless, of the 82 students enrolled in the two counseling ethics courses, 52 students chose to complete the assessment instruments at the three different data collection points (which resulted in a 63.4% usable response rate).

B. Participant Characteristics.

Descriptive data and measures of central tendency indicated that the mean age of the 52 students was 25.54 years ($SD = 4.54$; range, 21-41 years). Men ($n = 7$; 13.5%) were less represented than women ($n = 45$; 86.5%). To support the anonymity of the students' responses, they were asked to self-identify their ethnicity or race as Caucasian ($n = 35$, 67.3%) or "Other" ($n = 17$, 32.7%; e.g., African American, Asian/Pacific Islander, Latino American, Native American). A total of 32 (61.5%) students that they were enrolled in the counseling ethics course for the Mental Health and/or Marriage and Family Counseling track and 20 (38.5%) students indicated that they were enrolled in the ethics course the for School Counseling track.

C. Pedagogical Intervention (Counseling Ethics Courses).

The study participants were enrolled in one of two 13-week counseling ethics courses within a CACREP accredited counselor preparation program (13 class meetings that were three hours and fifty minutes in duration). One course consisted of counseling students in the School Counseling track and the other had students in the Mental Health and Marriage and Family Counseling tracks. In this counselor preparation program, students enroll in the ethics course at around the midpoint of their program of study. Specifically, students were unable to enroll in the ethics course during their first semester in the program as they were required to complete two prerequisite courses prior to the ethics class; additionally, the ethics course were not taken late in the students' program of study as the course was a prerequisite for their clinical courses (e.g., Practicum and Internship). Each of the courses' objectives was aligned with the appropriate CACREP (2009) *Standards*. For example, one course objective was that by the conclusion of the course, students would be able to demonstrate their knowledge and ability to apply the ACA (2005) *Code of Ethics* with diverse clients in various settings (CACREP, 2009; "ethical standards of professional organizations and credentialing bodies, and applications of ethical and legal considerations in professional counseling" [p. 10]). The content in both courses was designed to cover the primary counseling ethical and legal issues (e.g., professional identity and competencies; ethical decision-making models; confidentiality and privileged communication; suicide and client violence; and abuse, neglect, and negligence). For further information related to the course content, please contact us for a copy of the course syllabi that delineates the course objectives, activities, and assignments.

Pedagogically, the two instructors for the counseling ethics courses employed multiple educational strategies to support their students' learning and development. Specific teaching strategies included (a) course readings, (b) lectures, (c) group discussions, and (d) role-plays to support the students' learning and development. In addition, the students facilitated a group presentation to their classmates on a specific ethical issue confronting counselors; identifying research, ethical codes of practice, legal statutes, and organizational policies that influenced counselors' decision-making when experiencing a similar ethical dilemma (student as teacher). Moreover, the instructors employed scaffolding to support the students' learning and developmental growth. Scaffolding educational content (a) provides clear and concrete directions, reducing students' confusion; (b) clarifies purpose; (c) keeps students on task; (d) clarifies expectations and incorporates assessment and feedback; (e) directs students to worthy sources; and (f) reduces students' level of uncertainty (Lambie et al., 2012). For example, the instructors introduced the concept of confidentiality to their students, providing them with a concrete understanding of the ethical principle. Next, the instructors facilitated a discussion concerning confidentiality and counselors, clarifying the students' understanding of confidentiality with practical case illustrations (e.g., parent wants counselor to break confidentiality and share what child-client expressed to counselor). After the discussion, students were provided different ethical dilemmas confronting counselors and they had to apply, analyze, syntheses, and evaluate the different ethical decision-making processes they would employ.

Student learning outcomes were evaluated through both formative and summative assessments. Students had required readings from the two counseling ethics textbooks and the instructors used formative assessments of students' learning of course content through weekly quizzes on the assigned readings. Furthermore, students completed a summative assessment where students systemically worked through an ethical decision-making process. Specifically,

the two instructor required students to research an ethical and legal dilemma confronting counselors (e.g., suicidal ideation, duty to warn and protect). Following the identification of the dilemma, students constructed a case illustrating the ethical dilemma and presented how they would work through the dilemma using ethical guidelines and legal statutes (federal, state, case). To further students' development, the two instructors required the students to develop an ethical dilemma related to confidentiality and a counselor, encouraging the students to identify their own solution and process for working through the dilemma. Therefore, the two instructors constructed the courses to promote both their students' learning of ELK and their developmental growth.

D. Instrumentation.

The two constructs investigated in this study were: (a) ELK (as measured by the *Ethical and Legal Issues in Counseling Assessment* [ELICA]; Lambie et al., 2010) and (b) SCD (as measured by the *Washington University Sentence Completion Test* [WUSCT]; Hy & Loevinger, 1996). The primary variables used to examine the constructs included Total ELICA scores (pre-test, post-test, and follow-up test) and WUSCT Total Protocol Rating (TPR) scores (pre-test, post-test, and follow-up test).

    Ethical and Legal Issues in Counseling Assessment. The ELICA (Lambie et al., 2010) is a 50-item multiple choice assessment designed to measure graduate counseling students' ELK in 10 domains: (a) professional identity; (b) ethical and legal terms; (c) ethical decision-making principles; (d) confidentiality; (e) suicide and client violence; (f) abuse, neglect, and negligence; (g) counseling and educational records; (h) educational and civil right laws; (i) counselor development and wellness; and (j) discrimination laws and ethics. Sample items from the ELICA include:

1. When professional counselors are confronted with an ethical dilemma regarding confidentiality, the moral principle that should guide their decision-making is: (a) Justice, (b) Beneficence, (c) Nonmaleficence, or (d) Privileged communication.
2. This court case is most commonly related to a professional counselor's "duty to warn and protect": (a) *Davis v. Monroe County Board of Education*, (b) *Tarasoff v. Board of Regents of California*, (c) *Eisel v. Montgomery County Board of Education*, or (d) *Grant v. Board of Trustees of Valley View School District*.

    The ELICA was constructed per the suggested eight steps for scale construction (e.g., determine what it is you want to measure, generate an item pool, have item pool reviewed by experts; DeVellis, 2012) and the item development aligned with Kline's (2005) nine rules to guide the development of sound scale items (e.g., deal with one primary principle in each item, avoid imprecise terms such as *frequently* or *sometimes*). The reliability of the ELICA was acceptable with an overall Cronbach's Alpha score of .70 with 64 counselor education students (Lambie et al., 2010), .70 with 28 school counseling students (Lambie et al., 2012), and .71 with 226 practicing school counselors (Lambie, Ieva, Mullen, & Hayes, 2011). In addition, we conducted a reliability analysis with our ELICA data and the results identified the need to remove 15 items to strengthen the internal consistency reliability for the three ELICA datasets (pre-test, post-test, and follow-up test). The internal consistency reliability of the 35 item ELICA with these data was moderate to questionable, with Cronbach's Alphas of .62 (pre-test ELICA), .70 (post-test ELICA), and .67 (follow-up ELICA). Nevertheless, the internal consistency reliability of the ELICA with these data appeared appropriate for a knowledge assessment measuring different domains of ELK with a sample of 52 (Streiner, 2003).

Washington University Sentence Completion Test. The WUSCT (Hy & Loevinger, 1996) is a semi-projective inventory consisting of 18 to 36 sentence stems with different forms for men and women relating to Loevinger's (1998) eight levels of SCD. The two WUSCT forms differ only in gender specific language such as "A man should always…" (Male) and "A woman should always…" (Female). The short-forms of the WUSCT (81-1; Hy & Loevinger, 1996) were used (18 sentence stems) for this study. In scoring the WUSCT, each sentence stem response is rated as a whole by its level of meaning, or what the person is saying, and is not conceptualized in relation to the other 17 responses. A total protocol rating (TPR) is then calculated using an algorithm reflecting the respondent's assessed place on Loevinger's SCD scheme, which includes the following levels: *Impulsive* (E2) – student functions based on physical needs and impulses, while being dependent on others for control; *Self-Protective* (E3) – student is opportunistic and adheres to traditions and rituals; *Conformist* (E4) – student accepts rules just because they are rules, and strives for social acceptance; *Self-Aware* (E5) – student has increased self-awareness and reflectivity, beginning to recognize multiple perspectives; *Conscientious* (E6) – student becomes self-evaluative and reflective, while recognizing multiple possibilities and a sense of choice, and thinks beyond own concerns; *Individualistic* (E7) – student has sense of individuality and greater tolerance of difference, while having increased awareness of own incongruence; *Autonomous* (E8) – student has deep respect for others' choices and need for autonomy with a high tolerance for ambiguity; and *Integrated* (E9) – student has become congruent and self-actualized—few people ever reach this level (Hy & Loevinger, 1996; Lambie & Sias, 2009). For our investigation, the two scoring raters were trained in scoring the WUSCT and achieved a high interrater reliability of .92 on a sample of 25 completed test protocols.

The reliability and validity of the WUSCT has been supported with diverse samples (e.g., Cook-Greiter & Soulen, 2007; Noam et al., 2006). For example, Lilienfeld, Wood, and Garb, (2000) concluded that the WUSCT "has demonstrated impressive construct validity…" and "is arguably the most extensively validated projective technique" (p. 56). In addition, the median interrater of the WUSCT is between .89 and .92 (Watts, Robinson, & Lupton-Smith, 2002).

E. Data Analysis.

A time series design was employed for our investigation as a single group of participants (graduate counseling students) had their ELK and SCD measured at three intervals of time during their preparation program (Gall, Gall, & Borg, 2007). In addition, we examined changes that occurred between initial assessments and following an intervention (counseling ethics course; Houser, 2009). Nevertheless, findings from a time series research design needed to be interpreted with caution because of threats to internal (e.g., history) and external validity (e.g., interaction of pretest and intervention; Gall et al., 2007).

After the data collection process, we scored the data and entered it into a database and analyzed by Statistical Package for the Social Sciences (SPSS, 2012) using a repeated measures analysis of variance (ANOVA), Pearson product-moment correlations (two-tailed), and post hoc ANOVA. Prior to the data analyses, we examined the data set to assess the fit between the distribution of the variables and the assumptions of the statistical analysis; no assumption violations were identified. A sample size of 52 graduate counseling students was acceptable for identifying a large effect size (power = .80) at the .05 level (Cohen, 1992).

IV. Results.

A. Ethical and Legal Knowledge.

The 35 items ELICA (Lambie et al., 2010) was used to obtain the graduate counseling students' ELK scores. The pre-test, post-test, and follow-up ELICA scores are presented in Table 1. The students' post-test and follow-up ELICA scores correlated to the section of the counseling ethics course they were enrolled: post-test ELICA ($r = .77$, $p > .001$; 58.98% of the variance explained) and (c) follow-up ELICA ($r = .51$, $p > .001$; 25.91% of the variance explained). Therefore, the students enrolled in the counseling ethics course for the School Counseling track scored higher on the post-test ELICA and follow-up ELICA than the students in ethics course for the Mental Health and/or Marriage and Family Counseling track $F(1, 50) = 71.80$, $p < .001$; $F(1, 50) = 17.53$, $p < .001$, respectively.

B. Social-Cognitive Development.

The WUSCT–Form 81 (short-forms; Hy & Loevinger, 1996) was used to obtain graduate counseling students' SCD scores. The pre-test, post-test, and follow-up WUSCT TPR scores are presented in Table 1. The median and modal pre-test, post-test, and follow-up WUSCT scores represented the SCD *Self-aware* (E5) level. The students' pre-test WUSCT scores correlated with the section of the counseling ethics course for which they were enrolled ($r = .32$, $p = .02$; 10.2% of the variance explained). Therefore, students in the counseling ethics course for the School Counseling track had higher pre-test WUSCT TPR scores than the students in the course for Mental Health and/or Marriage and Family Counseling track, $F(1, 50) = 5.65$, $p = .02$.

C. Differences in Ethical and Legal Knowledge and Social-Cognitive Development Scores.

We conducted repeated measures ANOVA to examine the interactions between the graduate counseling students' ELICA and WUSCT TPR scores and the three intervals (prior to a counseling ethics course, at the completion of the course, and four months following the completion of the course). The results identified an interaction between students' ELICA scores and the three intervals, $F(1.78, 90.59) = 34.23$, $p < .001$. Moreover, the interval of time (ethics course experience and additional semester in preparation program) accounted for 40.2% of the change that occurred in the students' ELK scores for these data. In addition, the results did *not* identify an interaction between counseling students' WUSCT TPR scores and the three intervals, $F(2, 102) = .505$, $p = .605$. Therefore, the students increased their ELK scores during their experience in the counseling ethics courses (pre-test ELICA, $M = 45.62$, $SD = 7.66$; post-test ELICA, $M = 54.15$, $SD = 7.53$) and retained their ELK four months after completing their course (follow-up ELICA, $M = 54.15$, $SD = 7.28$); however, their SCD did *not* change during the seven month period (pre-test WUSCT TPR, $M = 87.87$, $SD = 5.85$; post-test WUSCT TPR, $M = 87.08$, $SD = 6.29$; follow-up WUSCT TPR, $M = 87.23$, $SD = 6.10$).

Table 1. Ethical & Legal Knowledge and Social-Cognitive Development Descriptive Statistics.

	Ethical & Legal Knowledge (ELICA)			Social-Cognitive Development (WUSCT—Form 81)		
	Pre-test	Post-test	Follow-up Test	Pre-test	Post-test	Follow-up Test
Section 1: School Counseling Students (*n*=20)	*M* = 45.40 *SD* = 5.88 Min = 36.0 Max = 56.0	*M* = 61.40 *SD* = 4.73 Min = 46.0 Max = 68.0	*M* = 58.80 *SD* = 7.77 Min = 30.0 Max = 68.0	*M* = 90.20 *SD* = 5.92 Min = 81.0 Max = 105.0	*M* = 86.90 *SD* = 6.77 Min = 74.0 Max = 102.0	*M* = 88.95 *SD* = 7.25 Min = 79.0 Max = 113.0
Section 2: Mental Health Counseling Students (*n*=32)	*M* = 45.75 *SD* = 8.68 Min = 20.0 Max = 60.0	*M* = 49.62 *SD* = 4.96 Min = 40.0 Max = 58.0	*M* = 51.25 *SD* = 5.25 Min = 38.0 Max = 62.0	*M* = 86.41 *SD* = 5.40 Min = 74.0 Max = 96.0	*M* = 87.19 *SD* = 6.07 Min = 72.0 Max = 101.0	*M* = 86.16 *SD* = 5.08 Min = 75.0 Max = 96.0
Total Counseling Students (*n*=52)	*M* = 45.61 *SD* = 7.66 Min = 20.0 Max = 60.0	*M* = 54.15 *SD* = 7.53 Min = 40.0 Max = 68.0	*M* = 54.15 *SD* = 7.28 Min = 30.0 Max = 68.0	*M* = 87.87 *SD* = 5.85 Min = 74.0 Max = 105.0	*M* = 87.08 *SD* = 6.29 Min = 72.0 Max = 102.0	*M* = 87.23 *SD* = 6.10 Min = 75.0 Max = 113.0

Note. ELICA = Ethical and Legal Issues in Counseling Assessment; WUSCT–Form 81 = Washington University Sentence Completion Test, short form; TPR = total protocol rating.

D. Correlation between ELK and SCD Scores.

We used a Pearson product-moment correlation (two-tailed) to examine the relationship between the counseling students' ELK and SCD scores. The post-test ELICA scores had a positive relationship to the students' pre-test WUSCT TPR (r = .289, p = .032; 8.4% of the variance explained). Therefore, the students with higher SCD scores before completing the ethics course had higher ELK four months after the completion of their course (increased retention of learning). In addition, the follow-up WUSCT TPR scores had a positive relationship to the post-test ELICA (r = .279, p = .045; 7.8% of the variance explained) and follow-up ELICA (r = .277, p = .047; 7.7% of the variance explained) scores. Thus, the students scoring higher in SCD four months after completing their ethics courses possessed higher levels of ELK after completing their courses (learning) and a semester later (retention of knowledge).

V. Discussion.

Our investigation was conducted to examine two faculty members' pedagogical practices (instruction of two graduate counseling ethics courses) and graduate counseling students' acquisition and retention of knowledge, and developmental growth; aligning with SoTL (Hutchinson et al., 2011). To date, no studies have investigated graduate counseling students' ELK and SCD at three different points in the preparation program over an extended period of time (seven month). Thus, we sought to examine graduate counseling students' acquisition of knowledge, retention of learning, and developmental growth over an extended period of time to assess student learning outcomes and faculty members' pedagogy (SoTL).

The findings identified a significant increase in the students' ELK from before completing an ethic course to the completion of the course (learning) and the students' retained their knowledge acquisition. However, the students' SCD did *not* change over the three data collection points (seven month period). The increase in students' learning based on their enrollment in a counseling ethics course was congruent with previous findings (Lambie et al.,

2012; Lambie et al., 2010); yet, the retention of students' learning four months after completing their course offers new insight as graduate students' retention of knowledge was *not* examined before. In addition, the results identifying no change in the counseling students' SCD was congruent with previous findings (e.g., Lambie et al., 2010) and inconsistent with other research (Cannon & Frank, 2009). Specifically, Cannon and Frank identified differences in WUSCT scores for counselor education students' participating in their internship experience using a *Deliberate Psychological Education* program (Mosher & Sprinthall, 1971); however, the incongruence in findings may be attributed to differences in our sample size ($N = 52$) as compared to Cannon and Frank's intervention participants ($N = 8$). Therefore, the promotion of adult learners' (graduate students) SCD may be difficult because Loevinger's developmental domain is a holistic personality construct that appears to stabilize in educated adults. Nevertheless, we conducted a Pearson product-moment correlation to examine the test—retest reliability for the WUSCT TPR pre-test and follow-up test scores, identifying questionable test—retest reliability ($r = .56$, $p < .001$). Therefore, when examining for changes in mean WUSCT TPR scores (pre-test, $M = 87.87$; follow-up test, $M = 87.23$) there appears to be *no* differences; however, the test—retest reliability analysis identified some differences in the individual graduate students' WUSCT TPR scores. Consequentially, promoting SCD growth in a large group of adults learners ($N = 52$; per our findings) may be difficult; nevertheless, educators may be able to advance SCD in small groups of students ($N = 8$; Cannon & Frank, 2009).

The identified strong relationship (58.98% and 25.91% of the variance explained) between the students' ELICA scores and the section of the counseling ethics course they were enrolled in supports that the students enrolled in the ethics course for the School Counseling track learned more than the students in the course for the Mental Health and Marriage and Family Counseling tracks. Differences in learning between the students enrolled in the difference sections of the ethics course may be attributed many different factors such as student attributes, class sizes (school counseling, $N = 25$; mental health and marriage and family counseling, $N = 57$) and/or pedagogical differences between the instructors.

The findings identifying a relationship between the students' ELK and SCD scores support that these two desirable counseling student qualities influence one another. Specifically, students ELK acquisition and retention of their learning related to their SCD, which was congruent with previous findings (Lambie et al., 2010). Therefore, counseling students scoring at higher levels of SCD possess desirable counseling qualities such as increased empathy, flexibility, perspective-taking, and self-care (Borders, 1998); and they may also acquire and retain increased levels of ELK as compared to students scoring at lower levels of development.

A. Implications for Counselor Education and Development.

This study's findings offer implications for SoTL. First, graduate counseling students' ELK may be increased and retained based on their participation in counseling ethics courses. Therefore, a primary goal of the counseling ethics courses and preparation program was met as demonstrated by the students' increased level of ELK both after completing the course and four months later. SoTL researchers may want to conduct similar time series design investigations to examine other areas of their curriculum to assess the impact of specific courses on their students' learning outcomes and development. In addition, graduate counseling preparation programs accredited by CACREP (2009) are required to assess their students to insure they "demonstrate the professional knowledge, skills, and practices necessary to work in a wide range" of counseling

settings (p. 17). Therefore, assessing counseling students' learning outcomes and retention of their knowledge acquisition is an attribute of educational programs that are accountable in higher education and SoTL (Hutchings et al., 2011).

The identified between differences in the students' ELK acquisition and retention and the counseling ethics course section they were enrolled suggest that possible student attribute variations and/or instructor pedagogical differences and/or class sizes influences student learning outcomes. As our results identified that graduate counseling students' ELK acquisition and retention, and SCD growth (Cannon & Frank, 2009) may be influenced by class size, program in higher education may want to evaluate their students learning outcomes (course pre-test, post-test evaluation) and assess the impact of class size on their knowledge acquisition (possible covariate).

The correlation between the students' SCD and ELK acquisition and retention of learning scores suggest that counseling preparation programs may want to promote these two desirable student qualities, given either that the constructs appear to influence one another or that an additional variable, not yet investigated, might influence both of these constructs. We endorsed that instructors in counseling programs work to promote their students' SCD as our findings supported that higher SCD is related to increase ELK acquisition, and previous research correlates SCD to higher levels of empathy, flexibility, and wellness (e.g., Lambie et al., 2009).

B. Limitations of the Study.

In interpreting our results, limitations warrant consideration. First, convenience sampling (participants from one university) and the sample size ($N = 52$), restrict the generalizability of the findings. Second, there are inherent limitations in a time series design, as other extraneous factors may have influenced the students and may have contributed to the actual increase in their ELK. For example, the students may have been enrolled in other courses that presented information relating to counselors' ethical practices, impacting their acquisition of knowledge.

C. Recommendations for Future Research.

In spite of the stated limitations, this was the first SoTL investigation to examine graduate counseling students' ELK and SCD at three points in their preparation program and the possible influence of pedagogical factors on student learning outcomes. In addition, our findings offers suggestions for future SoTL research, including (a) the necessitate for closer examination of the specific pedagogical strategies employed by the two instructors to discern if difference in the student learning outcomes were based on the instructors' teaching and/or student attributes, and/or class size; and (b) the need for qualitative inquiry investigation graduate counseling students' experiences in counseling ethics courses may provide meaningful insight to support their instructors pedagogy and their student learning outcomes.

Counseling students' ELK and SCD is important to their service delivery to future clients. We investigated students' ELK and SCD at three points in their preparation program; as well as the potential relationship between the students' ELK and SCD. We found that our students increased their ELK at the conclusion of the ethics course and retained their learning four months later; however, their SCD did *not* change. In addition, the students in the two sections of the ethics counseling courses ELK and SCD scores were different, supporting that

possible student attribute variations and/or instructor pedagogical differences and/or class sizes may have influences students' acquisition and retention of knowledge.

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